W.S.S.
WAR SAVINGS STAMPS
ISSUED BY THE
UNITED STATES
GOVERNMENT

NEW ORLEANS MEDICAL AND SURGICAL JOURNAL

EDITORS:

CHARLES CHASSAIGNAC, M. D. ISADORE DYER, M. D.

COLLABORATORS:

H. J. NICHOLS, M. D., Prest., Amer. Soc. Tropical Medicine..... } *Ex-Officio*
S. K. SIMON, M. D., Secty. American Soc. of Tropical Medicine..... }

P. T. TALBOT, M. D., Secretary Louisiana State Medical Society.....*Ex-officio*
RUPERT BLUE, M. D., Surgeon General, United States Public Health Service.
H. D. BRUNS, M. D., Tulane University of Louisiana.
C. F. CRAIG, M. D., Col., U. S. A.
S. T. DARLING, M. D., Sao Paulo, Brazil.
W. H. DEADERICK, M. D., Hot Springs, Ark.
E. M. DUPAQUIER, M. D. (Paris), Tulane University of Louisiana.
A. G. FRIEDRICHS, New Orleans, La.
J. T. HALSEY, M. D., Tulane University of Louisiana.
JOS. HOLT, M. D., New Orleans, La.
F. A. LARUE, M. D., Tulane University of Louisiana.
E. S. LEWIS, M. D., Tulane University of Louisiana.
R. C. LYNCH, M. D., Tulane University of Louisiana.
E. D. MARTIN, M. D., Tulane University of Louisiana.
R. MATAS, M. D., Tulane University of Louisiana.
AUGUSTUS McSHANE, M. D., New Orleans, La.
PAUL MICHINARD, M. D., Tulane University of Louisiana.
C. J. MILLER, M. D., Tulane University of Louisiana.
F. W. PARHAM, M. D., Tulane University of Louisiana.
E. A. ROBIN, M. D., Tulane University of Louisiana.
W. H. SEEMANN, M. D., Tulane University of Louisiana.
ALLEN J. SMITH, M. D., University of Pennsylvania.
EDMOND SOUCHON, M. D., Tulane University of Louisiana.
E. R. STITT, M. D., Rear Admiral, U. S. N.
J. A. STORCK, M. D., Tulane University of Louisiana.
R. P. STRONG, M. D., Harvard University.
ROY M. VAN WART, M. D., Tulane University of Louisiana.

Vol. 72 JANUARY, 1920 No. 7

EDITORIAL

THE A. M. A. AT NEW ORLEANS.

When, a few years since, a contributor to one of the monthly periodicals reviewed the progress in the South, he referred to the awakening of a sleeping giant, who, in rising from lethargy, shook his environment into a turbulent force. To those of us who have seen the evidence of this force and its reflexes, it may be worth while to pass commentary on our own local phases, in relation to the A. M. A.

New Orleans saw a regenerated A. M. A. in 1878. Again, in 1903, the inter-relation of local and state organizations and the A. M. A. was consummated and its first evidences developed here. In sixteen years the A. M. A. has grown into the greatest medical organization in the world and its usefulness does not lessen with time.

These years of a decade and a half have seen tremendous scientific advance in medical science to which New Orleans has contributed no small part. Bass's malaria work, the conquest of yellow fever (1905) and the control of plague may be mentioned.

Public Health activities, through the completer state organization and effort have taken first place and where hookworm and pellagra were more than common, these diseases now grow more occasional. The mortality rate in our Southern cities has fallen to presentable figures, notwithstanding the large negro population and its attendant deterrents.

Many remember New Orleans at the time of the 1903 meeting. The glamor of a Latin city, rough jeweled by modern civilization, set apart among the traditions of a people, still mourning its chapters of sad experiences of most a century and hard to rouse. The spirit of hospitality still alive, and ready to welcome, found a Crescent City full of kindness to those who traveled far to see and sense the Old Metropolis of the South.

Our streets were none too clean; our hotels oldfashioned and limited in number; our water supply of uninviting, muddy purity; our sewage still undisposed of in any sanitary fashion, and the vista of pleasant residences marred by unsightly cisterns, upon which many households still relied for their potable and ablutionary water.

Since 1903, yellow fever, plague, and disastrous storm have visited New Orleans and at last the fighting spirit of its people has been aroused.

It will be a new New Orleans in 1920. To those who knew us of old, there will still be the landmarks where culinary feasts may satisfy epicurean appetites. The old French quarter still preserves its architecture and its traditions. The varying patois, argot, gombo and creole French may be heard, mingled with the Italian which has easily been grafted in the quarter. The sightseers may still find the most of the sites of old New Orleans history, which has

been much aided by the Historical Society now exhibiting in the old Spanish Cabildo at Jackson Square.

But leave the sentimental region and traverse the main streets of newer New Orleans and see how all has changed in these few years. A "stroll on Canal Street" is a thing of the past—there is the same hurry and bustle as on State Street, or Chestnut Street, or Fifth Avenue, or Charles Street," in our Northern sister cities. Great buildings have risen, banks have stepped into the air; hotels have multiplied, streets have been paved; the sewage has been controlled; the drainage settled and the faucet at the bath, or at the font, brings crystal water as sweet and alive as from a perpetual spring, furnished by our great Mississippi which still rolls by and as ever fondly embraces our old and new city in its cresent fold.

Stop for a few moments and listen to the murmur of the river as it goes by:

> Wake, my children, and heed my song. I bring you greeting from many states—from the land of the laughing faces, from the ice bound regions of the high mountains, from the bronze and golden fields of ripened grain, from the multifarious voices of many mighty cities, all sounding the same message—greeting. O! Sister of the Southland, you have wept in sorrow, you have struggled through the years, but the benisons of time have silently rooted in our hearts, waiting for the day of your reward. It is here. The Father of Waters brings our message to you. Prosperity is at your door, the people of these great states love you and will bring their blessings to your gateway that you may speed them to the world to which your door opens. O! City of great purpose and greater heart, be it banker or merchant, workman or clerk, doctor or lawyer, all come with the wish of knowing you and leave with a better spirit of living—learning that even amid the day of weary task there is yet time to sing.

As the moonlight softens the shadows of old New Orleans and the balconies breathe her romance and as the odors of spring flowers season the night in the gardens of the new town mansions, and as the cries of the night sound their notes of discord or of peace—New Orleans will live unique among the great cities of the New World, striving for new ideals, but unforgetfull of those things which have made her great—chivalry, romance, faith, hope and the will to do.

ORIGINAL ARTICLES

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

GASTRO INTESTINAL DISEASE AT CAMP BEAUREGARD.*

By A. L. LEVIN, M. D., late Capt. M. C., U. S. A., New Orleans, La.

The bloodiest war of the ages is now ended and the time is here for our sober consideration of a subject in medicine which merits our attention. Strange as it may seem, that subject which should be of great interest to all of us has been largely neglected by our medical schools. When the country became involved in the great struggle, and a large and efficient army had to be organized, it was self evident that the millions of American boys could not go to the fields of training and battle without adequate provision to take proper care of their physical well being. The medical man was then destined to be the Pillar of Fire on the bloody fields of battle and the Pillar of Cloud in the Cantonments. Every part of the soldier's anatomy was to be taken care of and the Surgeon General of the U. S. Army, in establishing an efficient medical organization, included also a section of gastro-enterology in the division of internal medicine. One of our ablest and most enthusiastic medical organizers, Dr. Seale Harris, took personal charge of that section. He knew well the Napoleonic dictum that an army travels on its stomach, and he issued a call for medical men well trained in gastro-intestinal diseases to join the medical ranks of the army. I considered it a privilege to be one of the thirty-three selected for that particular work. Among the beneficial results which the great world catastrophe has brought forth in its path of ruin and destruction, it should also be included in the new medical history, the recognition by the medical department of the U. S. Army of gastro-enterology as an important branch, among other well recognized branches of medicine. I am convinced that this fact when properly emphasized and brought to the attention of the medical profession, will give rise to a greater encouragement for physicians and medical students to devote more time to the study and investigation, with greater thoroughness than heretofore, of that particular field of medicine,

* Read at 40th Annual Meeting Louisiana State Medical Society, Shreveport, La., April 8, 9, 10, 1919.

and our medical schools will give greater recognition to gastro-enterology and its ally, dietetics.

In presenting to you an outline of the gastro-intestinal work at Base Hospital, Camp Beauregard, I do not hesitate to admit that it is not as thorough and complete as I originally planned that it would be. You must bear in mind the following facts—(1) Numerous other duties consistent with army life and regulations quite often robbed me of the splendid opportunities to devote my entire time to gastro-enterology; (2) With the departure of Major Seale Harris in May, 1918, for France, gastro-enterology at our camp began to die a gradual death, lacking, it seems, that stimulating force and interest from the man at the head of it. The gastro-intestinal live wire from the Surgeon General's office to the Base Hospital, Camp Beauregard became dormant and almost ceased to operate. My monthly reports remained unanswered and on advice of my military authorities, I discontinued sending them. (3) The painful experience we often encounter in civil practice, namely, the hesitancy on the part of the average internist to admit gastro-enterology into the ranks of specialties, was keenly felt by me also in the field of gastro-enterology at the base. In spite of those impediments, I am able to present to you my gastro-intestinal work, covering a period of six months, from February 8, 1918 to August 1 of the same year. During that period, I treated in my medical ward 922 gastro-intestinal cases and held 258 consultations from Beauregard and other wards of the hospital, making a total of 1180 cases. The number of cases per month were as follows:

	Ward Cases.	Consultations.	
February	39	40	
March	57	45	
April	209	27	
May	101	32	
June	122	45	
July	394	69	
	922	258	Grand total 1180.

The figures do not include all of the uncinaria cases that were treated at the Base Hospital in a separate ward according to an outlined method. The approximate number of those cases were about 2500. A separate most interesting report on uncinaria was compiled and is probably published by now. The 1180 gastro-intestinal cases of a total of 27,000 men who composed the 39th Division

would give us a percentage of 22.2. If we include the uncinaria cases, the percentage would be tripled.

Let us now attempt to classify the 1180 cases into diagnostic groups, and then dwell on the most interesting groups or individual cases.

Achylia, gastric	2
Ankylostomiasis	456
Appendicitis, acute	6
Appendicitis, chronic	17
Auto-intoxication, intestinal	68
Abscess, peri-rectal	1
Biliary affections	23
Cestoda infection (tapeworm)	4
Cercomonas hominis	10
Colitis	5
Constipation	7
Dysentery, entamebic	34
Dysentery, unclassified	9
Enteritis, catarrhal	8
Entero-colitis, acute	184
Esophogeal stricture	1
Gastritis, acute	42
Gastritis, chronic, alcoholic	48
Gastritis, chronic, other causes	3
Gastric lues	6
Hematemesis	1
Hemorrhoids	4
Hyperchlorhydria, cause undetermined	3
Hypochlorhydria, cause undetermined	4
Lamblia intestinalis	6
Migraine	20
Nervous eructations, aerophagia	5
Neurasthenia gastrica, nerv. indg.	80
Oxyuris vermicularis	10
Pyorrhea alveolaris	61
Rectum, prolapse incomplete	1
Stenosis, pyloric (luetic)	1
Stomach, acute dilatation of (postoperative)	1
Stomatitis, mercurial	1
Strongyloides, intestinal	1
Ulcer, gastro-duodenal	12
Urticaria	25
Undiagnosed	10

Looking at this picture, one must admit that gastro-enterology is destined to take its place among the important specialties in medicine. If the medical professions will not recognize it, those boys who have returned from the camps to their homes surely will.

In the above work, I have adopted as far as possible, the plan

I have been accustomed to in my private and hospital work, namely —a careful history, physical examination and laboratory findings. The history in an army hospital is of great importance, the great value of which has appealed to me on more than one occasion, and I would cheerfully recommend that the same be adopted in every private institution for the benefit of our patients and ourselves.

We must bear in mind that the classes of patients I have met in the army and those we meet in civil practice differ materially. There were three groups of men, (1) the real sick, (2) the malingerer, feigning all sorts of symptoms in order to be discharged from service, or relieved from duty in line to be transferred to a swivel-chair job, and (3) a very small minority who concealed physical disability in order to get foreign service. The results of treatment were not as easy of success as it often is in private practice, for the following reasons: (1) only drugs sanctioned by the Army M. U. Dept. were obtainable in the dispensaries; (2) the malingerer and neurotic would not admit improvement because it was to his advantage to remain at the base as long as he could; (3) the real sick, in some instances preferred to remain as long as they could under the care of the medical officer and assist in the ward work, when able to do so. Extreme caution was exercised when handling a case; a mistake on the part of the medical officer would have formed a sad chapter in the history of his life. Psychology, good judgment, army life experience, and unlimited patience were the four pillars of the Temple of Safety for the medical officer at the base. The chief of the service was the backbone, the C. O. the brain and the adjutant—pilot and guide; and the routine work went on smoothly.

Let us now taste some scientific fruit of my labor. Whenever a test-breakfast was indicated, the fractional analysis was adopted in a majority of cases. I discarded altogether the one hour test. It is unscientific; unreliable; the large size stomach tube causes more distress to the patient; if an ulcerated area exists in the stomach, we are often liable to cause hemorrhage. It is of decided advantage to train our patients to retain for hours in their stomachs, a fine Rehfuss tube. Duodenal lavage for biliary affections and certain intestinal parasitic diseases, as advocated by Bassler and Rehfuss, is of great therapeutic importance and is destined to be a decided beneficial factor. We should use it more often. The tracing of the acid curve in fractional analysis is certainly a more reliable guide

as to what is going on in our patient's stomach than the one hour test. The motility of the stomach can be more easily recognized. It is not necessary to put the patient to bed as he is quite comfortable for hours sitting in a chair, which I have demonstrated in hundreds of cases. Achylia gastrica cannot and should not be determined by the old method. In several of my cases, the flow of gastric juice, for some reason, started only an hour and a half after the test meal was given. Be more modern and use the stomach pump only in that capacity when indicated.

The case of stricture of the esophagus resulted from swallowing a quantity of strong ammonia solution which was used for cleaning rifles, it being handed him by mistake to quench his thirst instead of water. Immediately after swallowing three quarters of a glass of that solution, he vomited a quantity of blood. When the hematemesis was controlled, almost a constant dribbling of saliva and mucus from his mouth followed, and difficulty in swallowing resulted to such an extent that at times he was unable to swallow water. The X-ray demonstrated plainly the existence of a stricture about four inches from the cardia. He improved greatly under complete rest and anti-spasmodic drugs. A bougie to dilate the stricture was not obtainable at the Base, so after he was discharged on account of physical disability, I referred him to Dr. Rudolph Matas for further treatment.

The increase in the number of cases during April was due to an outbreak of acute entero-colitis, almost of an epidemic form, among the troops who were at that time on the artillery and rifle range practice. There were two groups of cases of entero-colitis; one was very mild with sudden onset, beginning with nausea, headaches, light abdominal cramps, loose bowels, very slight rise in temperature and general weakness; the other group presented a picture of profound intoxication. There was high temperature, rapid pulse, general relaxation, marked weakness, vomiting and purging, stool containing blood and mucus, and severe abdominal pain. The laboratory at that time was overcrowded with work and a thorough investigation of the real cause of the trouble on a scientific basis was not made. The stools of several dozens of cases were carefully examined and only three cases showed the presence of amebæ, but in those cases a history of chronic intestinal trouble was obtained. The rest of the cases showed the presence of colon bacilli; several specimens were cultured with negative results. The water supply

was boiled and chemically purified and the source of infection could not be traced to that origin. In my opinion, the following factors were probably responsible for the outbreak of bowel trouble:—The abundance of flies, sleeping on the ground at night thereby causing a chilliness of the abdominal viscera and the season of the year when there is an abundance of new green vegetables. The latter factor would probably explain the reason of the development of a number of cases of the enlisted personnel of the Base Hospital, where the other causes were lacking. The mild cases recovered rapidly by an initial purgative, castor oil preferred, absolute rest, starvation for 36 or 48 hours and a gradual return to a normal diet with a subsidence of the symptoms. The cases of a severe nature required the greatest care and attention, calling for stimulation, intestinal irrigations and astringents. A few of them ran almost a course similar to typhoid, but without laboratory findings to substantiate such a diagnosis. The bleeding in some cases was quite severe, heroic measures had to be instituted to save life; horse serum was given in one case 3 times before the bleeding was controlled. I am very glad to state that in the entire group of 184 cases treated in my ward, not a single fatality occurred.

Next of interest to me were cases suffering from intestinal amebiasis. I will not go into details of this most interesting subject. A very rich literature on amebiasis has developed during the war. The French writers are inclined to consider even the ameba coli as pathogenic. Time and space do not permit to discuss the pathogenic species of ameba and its treatment. Suffice it to say that in my group of ameba cases, I have adopted the routine treatment, as carried on in our work at the Touro Infirmary. Absolute rest in bed for at least 10 days, or longer if necessary; emetine hydrochloride 7 or 9 doses by hypo. gr. 1 daily and ipecac salol pills; the diet was at first liquid minus milk, then soft food and later on brought up to normal diet. The treatment was followed up with colonic irrigations. The results were satisfactory in the recent infections where the amebæ were found to be in the vegetative state, but the chronic stubborn cases where the ameba is in the cystic stage, the emetine and ipecac were not entirely satisfactory. Personally, I believe that the cystic type of ameba has not been conquered yet, we are never on the safe side of a permanent cure, and here is an important problem for the student of medicine to solve. In this connection, I wish to mention a little

experimental work which I started, but did not have the opportunity to continue, with a freshly prepared Dakin's hypochlorite solution. In four chronic cases, I used the solution for high colonic irrigations with decided improvement. A drop of the solution added to the bloody mucus on a slide containing live amebæ, would cause an immediate shrinking of the organism and all other cells present. I regret exceedingly that the officer in charge of the Dakin ward was ordered for over-sea service, and the solution was not obtainable. The solution must be freshly prepared and it must contain not less than 0.4 nor more than 0.5 sodium hypochloride. The rectal tube should have several openings through which the solution can escape and touch every ulcerated spot in the bowel, as the effect of it lasts only a few minutes. The abdominal cramps which follow are relieved by a saline irrigation immediately afterwards. While on the subject of amebiasis, I wish to bring out the following points of importance:—hemorrhoidectomies were performed when the real cause of the trouble was the *Endameba histolitica,* a lesson of caution to the surgeons; prophylaxis of amebic dysentery should be enforced as advocated by Deaderick.

The group of biliary infections presents the following interesting points:—In 8 cases of cholangitis, the duodenal contents were obtained by the aid of the Einhorn bucket and placed in sterile tubes. Cultures were made and 5 of them contained colon bacilli. Certainly, the presence of colon bacilli is not a phenomenon of normal bile, according to Rehfuss; they are either eliminated by the liver into the bile or it is due to a reverse peristalsis. They all improved rapidly by trans-duodenal lavage, as advocated by Jutte. Five cases of jaundice developed after the second or third injection of anti-typhoid vaccine. No typhoid or para-typhoid organisms could be elicited; the infection probably was hematogenous, the jaundice resulting from hemolysis. They all cleared up in a few weeks under ordinary treatment. Two cases were treated surgically; one was found to be cholelithiasis as suspected on examination, the gall-bladder being literally packed with hundreds of small stones, the co-existence of pthisis-pulmonalis was discovered after the operation, tubercle bacilli were found in the sputum. He fully recovered from the operation, the tubercular condition was then taken care of. The other case was an obstructive jaundice, an indurated mass was found in the region of the ducts affecting also the head of the pancreas; it was thought to be malignant, drain-

age was established between the gall-bladder and a portion of the small intestines. He improved rapidly when anti-syphilitic treatment, as a trial, was instituted, though his Wassermann was negative.

I regret exceedingly that lack of time, proper instruments and assistance prevented me from treating cases of flagellate diarrhea by trans-duodenal lavage.

Cases of ordinary catarrhal enteritis were not easily manageable for the following reasons:—(1) To obtain a special diet from a kitchen where thousands of soldiers are fed according to prescribed standardized diet, is quite a problem to solve. At the base, I instituted special diet for my gastro-intestinal cases, but when those patients were returned to their organizations, the prescribed diet could not be obtained. (2) The lack of suitable drugs was another hindrance in those cases.

To handle neurasthenia gastrica cases was one of those army tasks which leave an indelible impression upon one's mind. Notice the large percentage of those cases on my list.

Ulcer cases, duodenal or gastric, were considered burdensome to the government, and as soon as all the evidences in the case pointed toward the existence of an ulcer, they were ordered to be put before the S. C. D. Board. I had the opportunity to treat the first four ulcer cases before their discharge papers arrived and they improved greatly on a modified Lenhertz treatment.

In intestinal toxemias, with indicanuria, my attention was directed towards cleaning up the indican, as outlined by me in a paper on "Indicanuria," which was read before the Louisiana State Medical Society in April, 1915.

Gastric lues was a subject which interested me considerably. I came across numerous cases of systemic lues with gastric disturbances, but as I outlined in my paper on that subject, read before this society in April, 1916, a case to be classified as gastric lues must present the following cardinal points:—

(1) History of vomiting, regular or periodic.
(2) Sharp abdominal pain, not having a direct relation to food, worse at night.
(3) Deficient or absent acidity.
(4) Positive Wassermann.
(5) X-ray, demonstrating the existence of a gastric lesion, or a small and contracted stomach.

(6) Immediate relief when bichloride of mercury and postassium iodide are given by mouth.

In this group, the following cases were quite interesting:

Case 1. Pr. T. R. was in prisoner's ward on a charge of A. W. O. L. He complained vaguely for a while of gastric disturbances and was looked upon as a neurotic. When he began to vomit and lose considerably in weight, the ward surgeon called for me in consultation. He was transferred, on my recommendation, to my ward and I studied the case in a systematic way. His principal complaint was irregular abdominal pains and periodic vomiting. During the hours of night, he would bring up large quantities of a greenish fluid containing mucus, also some food residue from the day before. He was very anemic, lost considerably in weight, so that he looked more like a human skeleton and his condition was such that a fatal termination was expected at any time. The observation made on him brought out the following points:—There was an achylia gastrica, symptoms of almost complete pyloric obstruction, a palpable mass in the right upper abdominal quadrant, general adenopathy. The laboratory findings were as follows:—Blood picture was that of a secondary anemia, Wassermann was negative on first test, after treatment was instituted a positive Wassermann was obtained. X-ray findings demonstrated pyloric obstruction. Occult blood negative and urine negative. Surgical intervention was decided upon. On operation, a large infiltrated mass was found at the pylorus, blocking the orifice almost completely, the mesentery glands in the neighborhood were also infiltrated. There were points in favor of malignancy. A gastroenterostomy was done and vigorous anti-luetic treatment was instituted. Patient began to improve rapidly, and in about two months time he gained 45 pounds in weight and from a dying invalid, he was converted into a robust and healthy looking soldier. Case 2. Sgt. W. R. gave a history of noticing a tumor gradually developing in the epigastrium for the past 4 years. The development and growth of the tumor was rather slow and was not accompanied with very great pain or discomfort, except for the last few months when he began to suffer from irregular pains in that region, with periodic vomiting, some loss in weight and constipation. He was very anxious to go to France and with that object in view, he applied for treatment to become a healthy soldier to serve with the A. E. F. in France. He denied any history of venereal disease. On examination, the tumor was about the size of a goose egg, visible and palpable, irregular in outline, and movable with respiration. Gastric analysis showed condition of hypochlorhydria, occult blood was negative, urine was negative, X-ray showed a small contracted stomach with a very irregular outline on the lesser curvature. His Wassermann was doubtful. Anti-luetic treatment was instituted. Pain and tumor began to disappear until finally the tumor was hardly palpable; he gained considerably in weight and his general condition improved so much that he was recommended for oversea service. In Nov. 1918, I received a letter from Sgt. R. dated Oct., 1918, from Somewhere in France, stating that he feels perfectly well, that he has no tumor and no pain, in spite of the hardships he is undergoing with the A. E. F.

The other luetic cases were also interesting and all had evidences of luetic structural changes in the stomach.

Much attention was paid to mouth infection as a common source of indigestion. In the group of cases mentioned in this paper, very little medication was given, but they were all sent to the dental department, where they could be handled properly. All but one showed marked improvement of their gastric disturbances, after a period of treatment by the dentist. The one that did not improve required a plate, the dental department was not equipped for that kind of work. It would be a wise policy for every modern hospital to have a dental department in connection with clinical work.

This brief resume is not full of scientifice data, but represents a mere compilation of the gastro-intestinal work done at the Base Hospital for a period of six months. The remaining period of my stay at the Base was devoted to work with the Draft Board, examinations for overseas and promotion, and finally, during the epidemic of "Flu," I was assigned to a pneumonia ward. The work of gastro-enterology was carried at times under the most trying circumstances, but always with the best intenitons to help the American boys who were destined to write a new chapter in human history with their blood. We have succeeded, the Kaiser's crown has been transferred to the Statue of Liberty. The Medical History of the war is now being written, every specialty, I am sure, is given a conspicious place. Lt.-Col. Seale Harris is writing the chapters on digestive diseases; I am sure that he has enough data to demonstrate the importance of gastro-enterology and place it among the well recognized specialties in medicine.

DISCUSSION OF PAPERS OF DRS. FOSSIER, KNIGHTON AND LEVIN.

Dr. A. G. Friedrichs, New Orleans: There is one thing that impressed me more than anything else, and that is in the address last heard, the doctor said no hospital is complete without a dental department. I am especially gratified. I want to say to you, gentlemen, that if you remember I called attention to that fact in 1879, having an article to prove it in the records of this society. I have continually, every session, called attention to this particular fact, and it is a personal gratification to me to know that at last somebody has really found it out.

Dr. E. M. Ellis, Crowley: The paper that interested me the most, not because it was more scientific, but because it involves a condition that the medical men have to deal with every day, was that of Dr. Fossier. Those of us who are confronted with this condition feel absolutely helpless, as it were, to relieve it. We are not interested so much in knowing the etiology of this condition, but what these poor individuals want is relief, and after years of experience I can almost tell when a patient walks into the office if he is suffering from visceral ptosis. Dr. Fossier has painted a beautiful picture and I agree with him in almost every

respect, but he himself admits that there are patients that do not improve under his medical treatment. I have patients who have been under observation for ten years, suffering from some form of this condition. They have a stomach in the pelvis, they have a floating cecum, probably the right kidney is down where the cecum should be. He says if you put them to bed, put on the proper abdominal support, and diet them, under proper medical treatment they will improve. My experience has been to the contrary. You put them to bed, put on the abdominal support, and these poor sufferers will for a few months have hope of getting well, perhaps they will gain twelve or fifteen pounds, but in six or seven months they are suffering as badly as ever, and if you put them under a fluoroscope you find the condition just the same as before treatment. I agree with him that ninety per cent. of the surgeons steer clear of these cases. Why? Because the majority of them seem not to improve under operation and because they are discouraging to the surgeons. They unload them on the medical men—they want to get rid of them. But you will find that twenty-five per cent. of your chronic sufferers among women are suffering from these ptoses. What are you going to do with these sufferers? You cannot put a belt on a patient who has no abdomen, whose viscera is in the pelvis. I have put these patients to bed for weeks, elevated the foot of the bed and all that, and on examination found the viscera within the pelvis. I believe a certain per cent. of these cases can be improved by operation, and I believe the reason operation has been discouraged is that no surgeon has experimented on enough cases. Coffee has done more work along this line than any man in this country. He reports a large per cent. of cases (and we know he is thoroughly conscientious)—he reports 50 per cent. cured, 25 per cent. improved and 25 per cent. no improvement. When he began his work he was discouraged, but he persisted and today he is doing a large per cent. of these cases. But I believe in trying your medical treatment first, and if this fails then these sufferers must have some recourse. I had two cases operated on, one in conjunction with Dr. Carroll Allen, a patient who had been practically bed-ridden for two years. We did a typical Coffee operation, and since then she has been practically well, and that was over six years ago. The other case did not do well, but was improved somewhat. I have a dozen cases I could operate on tomorrow, but I am afraid to operate on them. They are going to stay there and I am going to stay there and I am afraid I will have a bunch of chronics who will haunt me the rest of my days. There were twenty-five operations reported at the A. M. A. last year, with marked improvement after the Coffee operation. These chronics are not cured by medical means. They may be improved, but a large percentage of them go to the grave with the viscera in the pelvis.

Dr. A. C. Eustis: I want to second every word Dr. Ellis has said. No doubt a certain percentage of these cases are amenable to treatment by medical means and a certain percentage are relieved by surgical means only. I saw this woman he spoke of and she certainly was no subject for medical treatment; no support would have been effective in her case.

Another point Dr. Fossier brought out was that these cases are associated with relaxed abdominal walls. In some of the worst visceroptosis cases I have seen, the abdominal walls were perfectly rigid, so do not expect to find a relaxed abdomen in all cases. In a large per cent. there will be no evidence in the abdominal walls at all.

I would like to say a few words about Lane. When I was in London in 1911 I was very much interested in these cases. I saw one nurse who had been operated upon several times, and finally Lane did his ileorectostomy. I followed this case after the operation and heard from her subsequently by letter. She put on about thirty-five pounds after the operation and the last news I heard from her, she was still doing well and in active nursing. I followed up two other cases of his and they certainly were relieved.

Being an internist, you might expect me to urge the medical side. If a case is one of visceroptosis there is no doubt you can do a lot of good by proper hygiene and orthopedic appliances, but in a large percentage of cases the visceroptosis is so severe that they are surgical cases, and it requires considerable discernment on the part of the surgeon to know which operation to decide on.

In regard to Dr. Knighton's paper, my experience regarding cases of ulcer of the stomach has been that cases over twenty-five years of age are surgical cases. If Dr. Knighton and Dr. Levin will tell me some way to tell when a case of ulcer is cured, then I will say it is permissible to treat them medically. However, a surgeon doing a simple gastro-enterostomy is not doing anything more than the medical man. I looked up one of my histories in 1912 who had been discharged by Sippy in 1906. At the beginning of my history I had not heard of Sippy, but he was free from all symptoms for six years. When he presented himself to me he had a definite ulcer at the pylorus. Dr. Parham operated on him and found a large indurated ulcer which we thought at first was malignant. The reason I feel so strongly about this is that I have seen cases that I thought I had cured back in 1907, 1908 and 1909, present themselves later with well developed carcinoma. Unless you have pylorospasm you will not have symptoms of your ulcer. I have seen a case of carcinoma of the stomach where there was an enormous carcinoma, in which the man had no indigestion and he dated the trouble only two months prior, and the X-Ray showed his stomach emptied practically on time. Yet operation by Dr. Batchelor showed it was an inoperable carcinoma of the lesser curvature that was not involving the pylorus.

I am interested in the observations Dr. Knighton brought out about focal infections. We are, more and more, coming to realize the importance of these conditions.

Dr. A. L. Levin (closing): Dr. Knighton's reliance on the thread test in ulcer cases does not appeal to me as we have tried it out very faithfully at the Touro Infirmary, using a selected number of cases and the results were entirely unsatisfactory. It is true some cases will show a stain of blood on the thread, but the majority of cases do not show any blood stain; if they do, it is problematical whether the blood comes from an ulcer, it might be due to esophogeal irritation. If the ulcer is on the lesser curvature of the stomach, the thread, in trying to enter the pylorus, on account of the resulting tension, will naturally follow the course of the lesser curvature; if the ulcer happens to be on the greater curvature, the thread will not touch the ulcerated area and consequently will not show any blood stain. Of course the thread test is a valuable as any other test we have at our command for diagnostic purposes; it might prove of value in some cases, but it is not a reliable test for ulcer of the stomach in the majority of cases.

Concerning the Sippy treatment in gastric ulcers, I do not believe it is superior to any other treatment. I had the opportunity recently of seeing two cases at the Base Hospital, Camp Beauregard, who have gone through the Sippy treatment for gastric ulcer, and while at the Base Hospital, had two hemorrhages. The merit of the Sippy treatment in introducing alkalies into the stomach after lavage is of doubtful value. There was an article recently in the medical literature where experimental work had been done along that line and it was demonstrated that shortly after a dose of sodium bicarbonate, the gastric acidity is rather increased instead of neutralizing it, as we were taught it does.

Personally, I believe that there are ulcer cases which are best treated surgically from the very beginning, but in such cases where we have no absolute reason for sending the patient immediately to the surgeon, we should try medical treatment. There is a very wise rule laid down by a man who has done more work in gastro enterology than any man living, Ewald, and he states that in every ulcer case which is discharged as relieved or supposedly cured, the occult blood test should be watched for months afterwards. This should be done every two weeks, and if at any time after the first treatment, a positive occult blood is obtained, the patient should be sent immediately to a surgeon for an exploratory, the danger of carcinoma being engrafted on the base of an ulcer is too well known to us.

While speaking on ulcer cases, I wish to bring out a point which we should not overlook and that is, that there are cases of ulcer of the stomach luetic in origin; those cases are not cured by an operation, some not relieved by the surgeon. I recall one case where the condition was such that an exploratory laporatomy was urgent and on opening the abdomen, incidentally a perforated ulcer of the stomach was found. An excision was then out of the question on account of the moribund condition of the patient; the ulcer was covered up by mesentery, stitched, the abdomen was closed and after many weeks, the patient was improved. Shortly afterwards, the same abdominal pains, vomiting and other annoying features recurred. Some features in that case were suggestive to me that the entire picture was one of luetic origin, in spite of the fact that the patient persistently denied any knowledge of venereal disease. We made a Wassermann test and it gave four plus positive. On administering mercury and iodide by mouth, the pain and vomiting disappeared in a few days. On the face of such strong evidence, the patient admitted that nine years previous, he consulted a doctor in St. Louis for the same stomach trouble, who recognized then that the trouble was due to systemic lues; the patient admitting a history of primary lesion many years ago. He is doing remarkably well under anti-luetic treatment.

With regard to the focal infections having a relationship to the origin of the ulcer, that has not been determined yet. Rehfuss has been doing a good deal of work along this line.

I wish to remark in answer to Dr. Eustis' statement that achylia gastrica is not a diagnosis; it is true in a number of cases, as a rule there is a factor causing the achylia, but there are cases of achylia of congenital origin. I know of such a case in New Orleans; we have been watching him for years, we cannot find a cause for his achylia, he is in perfect health otherwise and he takes faithfully his HCL drops after meals.

INFECTIOUS DIARRHEA.*

By F. J. KINBERGER, M. D., New Orleans.

During last summer it was my good fortune to spend eight weeks on the Boston Floating Hospital where I had the opportunity to observe types of diarrhea that were the cause of no little concern. In a series of about twenty cases of dysentery, the profound and severe toxic symptoms as elicited by the patients brought to mind the necessity of employing the most energetic treatment in order to save the life of the little patients under charge. The diagnosis of infectious diarrhea depended entirely upon the examination of the stools of these babies, and the bacteriological study to determine the offending organism. The oppressive heat of the summer seemed to have a marked influence upon the increased number of cases noted at that time, and the careful study of the milk supply did not influence the findings in one way or the other. Infectious diarrhea is a definite bacterial infection caused by the dysenteric bacillus, the most prominent being the Shiga and Flexner types. During the summer of 1913, observations were made by Kendall of Chicago on the etiology of summer diarrhea. The material for study being children under three years of age, mostly from the tenement districts whose hygienic conditions at home were anything but satisfactory and this coupled with neglect played a large part in the severity of the symptoms. The intestinal flora of children under three years of age is in a transitional state. The bacterial flora characteristic of infancy is gradually being supplanted by organisms associated with adolescent life. This is somewhat due to the change in diet. The milk diet is being replaced more or less gradually by a mixed diet in which the composition and relative proportion of the ingredients are changed. Of the ingredients the carbohydrates and protein are the most important in determining the alteration of the bacterial type. In the nursling the diet contains about four times as much lactose as protein and favors a flora which to a certain extent is a protective one, producing a certain amount of lactic acid which helps to restrain the development of bacteria which are able to produce diarrheas of marked severity. It has been shown that the fermentative bacteria of which the *Bacillus bifidus* is the most prominent, is of decided value in preventing certain bacterial proliferation

* Read at 40th Annual Meeting Louisiana State Medical Society, Shreveport, La., April 8, 9, 10, 1919.

which is harmful to the immature intestinal canal. As the diet is changed, the carbohydrate and protein ratio is altered and there is a readjustment of bacterial types in the intestinal tracts causing an instability in the bacterial content of the alimentary canal. We have a condition more favorable to putrefaction. The prevailing type of bacteria in the cases has not been the same each summer so that one season seems to show the predominence of the Shiga and Flexner type and the next season shows a series of gas bacillus infections. Streptococci have been found and were looked upon as secondary invadors. Many acute disturbances of the gastro-intestinal tract arise from errors in feeding or from temporary inability of the individual infants to digest the food. Various outside causes such as temperature, humidity, environment or acute diseases must be considered, and it is from these disturbances which are usually caused by improper administration of one of the food elements such as fat, carbohydrates or proteid that the bacterial infections being differentiated. A study of the stools will readily show whether or not these factors are the cause of the gastro-intestinal disturbance. It is true that bacteria sometimes play a primary part in some instances and a secondary one in others. It is in these series of cases that the bacteria played the primary role. The term "infectious diarrhea" as applied to these cases is truly an infectious disease. The onset is sudden and the incubation period is variable, probably short and often a matter of a few hours. There are usually no prodromal symptoms. There is a rise in temperature to a 104 or 105 degrees and the fever is continuous for several days. Prostration is present and often shows a picture of complete collapse. This can occur within a few hours after the onset of the attack. The eyes are sunken, the tissues seem dry and washed out and nervous symptoms are common, extreme restlessness and convulsions. Vomiting was present early and severe. The number of stools varied from 20 to 30 in 24 hours. They differ in character from the stool of fermentative diarrhea in that they contain mucus, pus, and blood. Whereas the stool of fermental diarrhea are usually green and contains curds and undigested masses. The prostration and toxic symptoms are directly proportionate to the severity of the diarrhea. The marked loss of fluids leads to a condition of depletion with depressed fontanelles, hollow eyes, dry skin, sunken abdomen and modified breathing. Acidosis exists. By work done in past summers it has become

necessary to determine the particular organism concerned principally as regards treatment. Clinically it is very difficult to differentiate subdivision because of the similarity in the picture produced by the different bacteria. Certain type of intestinal bacteria, particularly the dysentery bacillus, both the Shiga and Flexner types have received the greatest amount of attention. The gas bacillus as a causative factor was observed in about 2 per cent of the cases. The bacteriological examination of the stools were conducted by the laboratory of the Harvard Medical School. Investigations by Kendall has pointed out the fact that dysentery bacilli when grown in media containing an excess of carbohydrates, use the carbohydrates first and only enough proteid to furnish the nitrogen requirements of their living body structure. Since the toxic products are largely the result of protein breakdown we should expect the minimum of toxic products in the presence of an excess amount of carbohydrates. So the treatment consisted in furnishing carbohydrates in the form of dextrose or dextro-maltose solution as high as 8, 10 or 15 per cent strength. In these cases in which the vomiting was not severe, this was administered by mouth. Contrary to this line of treatment the gas bacillus flourishes in carbohydrates, and if given carbohydrates, food will continue to multiply and aggravate the clinical symptoms. The little patient ill with gas bacillus infection would grow steadily worse if fed on high carbohydrate and improve on a diet low in carbohydrates. In the treatment of this type lactic acid milk or Eiweissmilch was fed to these patients, the lactic acid being detrimental to the development of the gas bacillus. The improvement was conclusive. In the severe types of infection there was really a true toxic shock, and the symptoms had to be combatted with by other means than diet. While truly an intestinal disturbances, the treatment was like that of any of the acute infections. A safe diet was a formula of fat free milk, ripened with lactic acid bacilli, a formula low in fat and protein with a sugar proportion of about 5 or 6 per cent. Special symptoms to be treated were pain, tenesmus, marked prostration and collapse, toxic nervous irritation, vomiting and high temperature. Hot stupes were used to alleviate the pain. Paregoric was used to check excessive peristalsis. Caffein sodio-benzoate 1/8 to 1/2 grain hypodermically was found to be the best stimulant. Brandy by mouth according to age. For the treatment of collapse, fluid by hypodermoclysis giving from 4 to 6 ounces every 4 hours.

Another method was to give 6 ounces, of normal saline or 5 per cent dextrose intraperitoneally. 28 gauge or lumbar puncture needle was inserted 1 or 1 1/2 inches below the umbilicus in median line at an angle of 45 degrees. The same care should be exercised in preparing the abdomen as for a laporotomy. There is no danger in injuring the intestines and is a quick means of furnishing fluid and stimulation. Fuel in the form of 5 per cent dextrose or glucose given intravenously—in infants under 18 mouths in the longitudinal sinus, the site of the injection being the posterior angle of the anterior fontanelle. A special apparatus was contrived for this purpose. A three stop cock, connected with a Luer syringe at one outlet, and two leads of rubber tubing, one connected to the solution to be given and the other with the needle to be inserted in the sinus. In all injections a small amount of normal saline was run through first. After inserting needle suction was applied to determine if within vein. Then a slow steady pressure was exerted to give solution. Four ounces of fluid was injected at one time. Sometimes there would be a rise of temperature after dextrose was given. This would fall quickly however. Adrenalin (1-1000) one to five minims at times added to dextrose. For nervous symptoms sodium bromide according to age was found the best drug. Lumbar puncture was also done to relieve intracranial pressure. In conclusion in undetermined cases it is best to give one diet then observe. If results favorable continue, if temperature rises change to protein. The necessity of supplying fluids is urgent, as much as 24 to 32 ounces in 24 hours. The dysentery was treated entirely from a diatetic standpoint entirely. Outside of initial dose of castor oil, very little medication by mouth. In cases passed the acute stage, a small dose of milk of bismuth if stool remained rather frequent. Prognosis should be always guarded.

PICRIC ACID—A PREOPERATIVE DISINFECTANT.*

By O. C. CASSEGRAIN, M. A., M. D., New Orleans.

The thorough disinfection of a patient's skin is not the least important part of an operation. That this is true is proven by the many different methods of preparation and the many different germicides progressive surgeons have used since bacteriologists have

* Read before Orleans Parish Medical Society on October 13, 1919. (Received for publication Nov. 10, 1919.—Eds.)

shown that the *Staphylococcus albus* was ever a potential source of wound infection. Different method after different method, one germicide after another was tried, only to be discarded until the iodine method now almost unniversally adopted, came into vogue and seemed to fill to perfection the surgeon's every want.

Since my interne days, however, I have always thought that iodine had two disadvantages. The first, that it was incompatible with water and the second, that it not infrequently produced irritation of the skin.

In emergency cases, or in cases which are not properly prepared and who come to the operating room either not thoroughly shaved or even not clean (we have to contend with such conditions not only in charity but also in private institutions, especially in cases of fracture which required surgical interference), the first thing one wishes for is soap and water: Now with the iodine method of preparation one of two alternatives is left the surgeon; either use soap and water with the fear that the skin sterilization will not be complete or scrub away with iodine and benzine and irritate the patient's skin, in either case a very unsatisfactory procedure.

As for the second objection, irritation of the skin, it is not necessary for me to dwell on it. You have seen it more or less often, in fact it has led many surgeons to wash off the iodine with alcohol, as a routine before applying the dressing.

This brings me to a method of preoperative disinfection we have been using in our service at the Charity Hospital for the last three months.

Our chief of service, Dr. Gessner, first suggested our trying it after reading a report of fifty cases operated by Dr. Gibson of New York *(Annals of Surgery* for February, 1919.)

Dr. Gibson first used picric acid as a disinfectant while with the British Army in France. The method we used at first was the Gibson's: (1) Wash the operative area with soap and water. (2) Paint it with a 5 per cent alcoholic solution of picric acid.

Very soon, however, in cases that come to the operating room prepared the way they ought to be, I eliminated the washing with soap and water and modified the original technic:—1st. By wiping the skin with alcohol, then, 2nd, painting it with 5 per cent picric acid. We eliminated the first step simply as a time saver. Dr. Gessner has told you of the various types of cases on which he tried this method, all giving good results.

On my part, for the last three months at the Charity Hospital where I had charge of the service during the summer, I used this method as routine. We averaged during that time four cases a week from appendices to hernias, one umbilical, one femoral and many inguinals, and from exploratory laparatomies (one of which was a large ovarian cyst and another double pus tubes with cystic ovary) to nephrectomy for hydronephroma; in all these cases we had but one infection in an inguinal hernia; this was not the fault of our skin preparation but from a break in our aseptic technic during the operation.

Hernias and fracture cases were satisfactorily operated with our method and did not become infected and every surgeon here knows that there is no greater test of asepsis than either a hernia or a Lane plate. Another argument in favor of the use of picric acid is that it is approximately 40 per cent cheaper than iodine and in these times of high cost of material it should be no small inducement to any hospital management to substitute for an expensive drug one 40 per cent cheaper and as good if not better than the expensive one.

We advocate the use of picric acid as a preoperative disinfectant, because:—

(1) It thoroughly disinfects and can be used with soap and water.

(2) It does not irritate the skin.

(3) It is approximately 40 per cent cheaper than the drug now almost universally used for the same purpose.

Discussion of Dr. Cassegrain's Paper.

Dr. Gessner: Dr. Cassegrain has covered the field so thoroughly that there is very little left to say. I think it should be made clear, however, that we are not attempting to drive benzine and iodine from the field. While picric acid is good, we cannot claim it is better than benzine and iodine. There are a number of cases in which I have used picric acid at Touro. In the first case in which I used it, there was a thyroid cyst under local anesthesia; I got a good result in that case which encouraged me to use it further. I think we ought to look at picric acid not as a rival of iodine and benzine but as another string to our bow. It may happen that we cannot get benzine and iodine and then it will be a source of satisfaction to have another reliable means of preparation. The use of picric acid where water has been used is permissible. It not infrequently happens that we have to operate on patients who have not been shaved. If soap and water are used, iodine is not satisfactory. A benzine shave is somewhat difficult. Shaving of the scalp particularly is done better with soap and water. I think that is a good point for picric

acid. In the matter of cost, it is pretty well established that picric acid is cheaper, as Dr. Cassegrain went to two reliable sources and received this information from both. I think another thing that is worthy of attention is that the attendant has to provide you with only one bottle of painting material when picric acid is used.

Dr. Guthrie: I have seen a patient's urine yellow from the use of picric acid, locally applied in treating a burn. It seems to me that picric acid is considerably irritant to the kidney and possibly dangerous on this account.

Dr. Patton: I would like to know whether picric acid can be used in open wounds, or is there danger of absorption? Just how toxic is picric acid? It might be of interest to know that both in England and Italy, in many of the hospitals, picric acid is used almost exclusively. It is claimed the acid is much cheaper than iodine, can be used after washing the surface with soap and water, that it penetrates deeper and lasts longer.

Dr. J. T. O'Ferrall: My understanding is that the laboratory experiments have proven that antisepsis of the skin lasts for a much longer period with picric acid. Another point I heard often discussed in this relation is that iodine is not germicidal where applied to mucous membrane.

My experience is that picric acid is the most valuable skin antiseptic. I use it to the exclusion of iodine. It particularly appeals to me when dealing with the feet and extremities, and I have often had occasion in which fractures occurred to use it. I use picric acid instead of iodine for the reason I can put a cast on and not fear blistering of the skin.

Dr. L. M. Provosty: I would like to ask Dr. Cassegrain to explain the reason why he thinks iodine is incompatible with water.

Dr. Wm. Perkins: We are indebted to Dr. Cassegrain for bringing before us this subject, which is worth while looking into. I concur in Dr. Gessner's point of view, that when we find a new remedy we should not discard the old. It is an unfortunate thing in medicine when a man finds a new thing he so often holds it up as the only thing.

A great many of the troubles with iodine come from lack of care. We have had case reports in the hospital, where the patient was blistered because the knee joint was painted with iodine and bandaged while still wet. If you are going to use iodine it is best to know when and how to use it. Always permit it to dry before bandaging.

Dr. Gessner's remark, that you have another string to your bow, is an excellent summary of the matter.

Dr. Cassegrain (closing): In regard to the question "why doesn't iodine sterilize after the use of soap and water, I think the only explanation is that the epithelial cells absorb water and as iodine is insoluble in water, we have no absorption, therefore no sterilization.

As for Dr. Guthrie's objection to the use of picric acid, it has been my experience that after burns, especially extensive burns, we have nephritis, and the burn and not picric acid, is probably responsible for the nephritis in this case. I have not seen any of our cases develop kidney complication.

PREVENTION AND TREATMENT OF INFLUENZA AND INFLUENZA PNEUMONIA.*

By GEO. A. HOGAN, B. S., M. D., Birmingham, Ala.

Prevention of Influenza.

At the beginning of the influenza epidemic in our city September, 1918, I began using influenza vaccin. I gave it at daily intervals ½ c. c. dose for four doses.

Every pregnant woman who came under my observation in my practice I advised to take the vaccin, and practically every one did so. Up to the present time I have not had a case of influenza to develop in these, or in fact in anyone, who took the vaccin.

As soon as I was able to obtain it I began using influenza-pneumonia vaccin (prophylactic) as prepared by Dr. E. C. Rosenow of the Mayo Foundation, Rochester, Minnesota. I gave this at three days' intervals; first dose for adult ½ c. c., second dose 1 c. c., third dose 1½ c. c. For children the dose was regulated according to the age and weight.

Treatment of Influenza. and Prevention of Influenzal Pneumonia.

In treating influenza with vaccin, it naturally follows that one is preventing a larger percentage of influenzal pneumonia than under ordinary symptomatic treatment.

At first visit to a case of influenza, I gave ½ c. c. vaccin and repeated in twenty-four hours if the temparature was above 101 F. Generally, three to four doses were sufficient. I kept the patient in bed four days after the temperature reached normal. I did not have a case to develop pneumonia where the above line of treatment and prevention was given.

Treatment of Influenzal Pneumonia.

The treatment that I wish to describe is one which I shall designate as the "closed" method of treating pneumonia. I have used this method in treating pneumonia for several years, and in the vaccin treatment of different diseases for ten or twelve years. I found that my results in the use of vaccin, in the negro race, were so much better than those in the white that it caused me to think out the difference in the natural way that these different

* Read before Jefferson County Medical Society, April 2, 1919.

races applied their individual mode of treatment. The negro would be in a tight room, out of draughts, with a good deal of cover, a profusion of poultices, and partake of quite an assortment of hot teas, drinks, hog hoof tea, etc., and would get well with half the attention usually given to the white patients.

The white patient, on the other hand, would be reverse. The "open" method of treating pneumonia would be carried out. Very little clothing on patient, covering enough to make patient comfortable, windows open, cold applications, sponging and cold drinks for fever, and even with double the attention, the time of recovery would be twice as long, and the mortality greater. These facts I discovered a few years ago in treating frank pneumonia, lobar and bronchial.

In treating influenzal pneumonia, I used the "closed" method of treating pneumonia: Windows and doors closed, the temperature of the room 70 F, ice bag to head, hot water bottles, one to feet and one on either side of patient, outing gown on patient, two pairs of blankets as cover, keep patient in bed, quiet, use bed pan, plenty of water to drink, one dram of sodium bicarbonate in pint of water per rectum every 6 hours, using medium sized soft rubber catheter. In some cases one dram of sodium bicarbonate was dissolved in a quart of water and given by the Murphy drip. If patient was very restless, I would add to this solution potass. bromid, gr. xx, and chloral hydrate, gr. x. For cough, paregoric, codein and whisky. To keep bowels opened, calomel, gr. ¼, podophyllin, P. E., gr. 1/10, ipecac, P. E., gr. 1/20, comp. jalap powder, gr. v, in capsule or powder every two to four hours; castor oil, with 5 drops turpentine, as needed.

Oxygen was used in a goodly number of cases. If circumstances permitted, I ordered a tank of oxygen, just as I did camphorated oil, so as to have it ready for immediate use, not waiting to let these remedies be the forerunner of the undertaker. The timely use of camphorated oil and oxygen is followed by surprising results.

No sponging or changing of bedding until temperature has been normal, or below normal, as is usual, for three days. Digitalis, drops x, every 4 hours for 24 hours, and then 3 times daily for 2 or 3 days. Pneumonia phylacogen every 6 to 12 hours, being regulated, as to time and amount of phylacogen given, by the temperature, varying from ½ c. c to 1½ to 2 c. c.

When I would give a dose of phylacogen, the hot water bottles were renewed or refilled, and after the reaction, or the sweat following the vaccin and heat, all the bottles would be removed except the one at feet. This would be repeated each time, after each dose of phylacogen.

Any stock commercial preparation of vaccin is good and reliable if prepared by trustworthy manufacturers and properly preserved and properly used. The immunizing and curative stock vaccines are made from selected, vigorous organisms, and are to be preferred to auto-vaccines prepared from an enfeebled patient. Another advantage in the use of stock vaccins in the promptness and readiness with which they may be obtained and given.

Results.

I treated 195 cases of influenzal pneumonia, bronchial and lobar, during the recent pandemic, with a mortality of five deaths, or 2½ per cent. Excluding my first case, in which no vaccin was used until patient was at death's door, the percentage would be 2 per cent plus. In these cases, exclusive of the first, vaccin was used from beginning to end. Of these 195 cases, 14 were pregnant women, from 3 months to full time. All recovered. Twelve aborted or labor was precipitated. All of the children died or were still-born. One gave birth to twins. Two did not miscarry.

A striking contrast to the above are the results obtained by the symptomatic or expectant plan, or the "open" method, of treating pneumonia, which shows a high rate of mortality. Practically every pregnant woman, of three months' gestation, who contracted influenza, aborted and died. The plan I pursued in treating the impending abortion or miscarriage in these cases of influenza or influenzal pneumonia, was to treat the influenza or the influenzal pneumonia and let nature look after the abortion or miscarriage. It is my opinion that, where instrumental delivery was resorted to, or labor was precipitated by artificial means, the resulting shock and exposure of the patient were responsible for quite a number of deaths. In other words, this method of procedure often converted a case of influenza into influenzal pneumonia. The moving of the patient to operating room or hospital had its baneful effects. It might be added that the same thing was true of any case of influenza.

This number, 195, does not include a number of cases that were

so far advanced with influenzal pneumonia that there was doubt about the results. In other words, cases that were treated by other physicians, or not treated at all by physicians, whose condition at first visit was extremely unfavorable. Several of these recovered and a goodly number died. I do not take credit for recoveries, and hence I do not consider those that died as failures, for I believe that if they had been treated as per the "closed" method of treating pneumonia a majority would have recovered. To illustrate, I will report one case:

K. Double influenzal pneumonia, diagnosed by staff of a local hospital and prognosed as unfavorable. When I first saw him he was nervous, restless, a beginning delirium, temparature 104½, pulse 110, respiration 40. I crossed out the treatment that he had been receiving. I began the "closed" method of treating pneumonia. Gave three doses of vaccin at 12-hour intervals, and in 2½ days his temperature was normal and he was on the way to recovery. In a day or so he relapsed from getting out of bed two or three times and being over-examined. My plan is to examine the patient at first visit,—heart, lungs, abdomen, etc., and afterwards to let the temperature be my guide as to the condition of the patient. I had to go back and give him five doses of vaccin and he recovered. I treated a good number of like cases that are not included in the 195 cases.

REPORT OF FATAL CASES.

Case 1. White man. Ran a typical influenza course, three days' fever. On the fourth day I saw this man and directed that he stay in bed three days, and if he did not get along all right to call me. The next day it was drizzling rain and I was crossing from Empire Building to Brown-Marx Building, and this man waved at me as he was going south on 20th Street in a jitney. The next day I was called hurriedly to see him. He stated that he had a chill the night after the jitney ride of the day before. At this visit he was blue, restless, in a great deal of pain, temperature 105½, pulse 100, respiration 45. I asked for consultation and we decided that he had pneumonia and sent him to hospital. I saw him at hospital at about 8:00 P. M. the same day and he was coughing and spraying a watery bloody fluid in every direction and died in about three hours. This was my first case of Spanish Influenza and influenzal pneumonia. He had edema of the lungs—the fulminating form of influenzal pneumonia. No vaccin was used in this case until I saw him at hospital and gave him a dose, believing at the time that it would not do him any good. The "open" method of treating pneumonia was used in this case.

"Closed" Method. Case 2. White man. The "closed" method of treating pneumonia, and vaccin, were used. The patient recovered, or was recovering, from the influenzal pneumonia. He died seven days after symptomatically recovering from influenzal pneumonia, of nephritis.

Case 3. White woman went to bed with a double influenzal pneumonia, she staying up through the influenza on account of there being two others in the same family sick with influenzal pneumonia. She

developed a profound coma suddenly, in three days after going to bed, and died in three hours. She possibly had a hemorrhage into brain.

Case 4. White woman went to bed with a double influenzal pneumonia, high temperature, 105½, pulse 110, respiration 34, at first visit. No nurse, patient very poorly nourished and did not react to vaccine. Could not make her sweat. She died in three days from time of my first visit.

Case 5. White man. Double influenzal pneumonia at first visit. Fat, short man, no nurse, surrounding very bad. Died in two days from first visit.

Comment.

In Spanish Influenza the temperature is characteristic: 1st day, A. M., temp. 102° F., P. M. 104° F.; 2nd day, A. M., temp. 102½° F., P. M. 105½° F.; 3rd day, A. M., temp. 103° F., P. M. 105½-6° F.; 4th day, A. M., temp. 97½° F., P. M. 100½° F.; 5th day, A. M., temp. 98° F., P. M. 98½° F. to 99°; 6th day, A. M., temp. 98° F., P. M. 103° F. This P. M. temperature of 103°F., which may occur on the 5th, 6th, 7th, or 8th, but usually on the 6th, is the sign of the beginning of influenzal pneumonia. This I consider typical of the Spanish influenza pandemic that was followed by influenzal pneumonia.

The freer the expectoration, and the sooner it occurred, and if it was bloody, the more favorable the prognosis and the less the pain.

The mortality in general was high. It has been estimated that 2 per cent of those stricken with Spanish Influenza died. This would give about 30,000,000 cases of Spanish Influenza, with 600,000 deaths. Granting that all deaths were due directly or indirectly to influenzal pneumonia, this would give a total, say if the general mortality was 10 per cent, of about 6,000,000 cases of influenzal pneumonia, or one out of every five cases of influenza was followed by influenzal pneumonia, or one out of every 200 people of the United States died of influenzal pneumonia.

In London the general death rate was increased by influenza more than 20 per cent, in Berlin by more than 60 per cent, and in Paris and Brussels by more than 100 per cent. In our city, Birmingham, we had a mortality of 14.8 per cent. of deaths from influenzal pneumonia. This is from September, 1918, to February 15, 1919. Only ten cities of the fifty-eight largest cities in the United States had a lower mortality rate than Birmingham in the recent pandemic of Spanish Influenza. In pregnant women from 60 to 95 per cent died; in the general run of cases, the mortality is from 17 to 45 per cent. Under the vaccin treatment it runs

from 1.3 per cent to 5 per cent. The major portion of these 600,000 deaths occurred between the ages of 18 to 45 years, where human life is of the highest economic importance.

There is no question but that influenza is a specific infective disease like cholera, typhoid and small-pox. And it is my belief that we have at our disposal a specific means of preventing influenza, in prophylactic vaccination.

Drugs that have a depressant action should be carefully avoided. It is my opinion that aspirin and its allies, the salicylates, were responsible for as many deaths in the pandemic of influenza as was influenzal pneumonia. Atropin and its allies are also contraindicated. It was not responsible for so many deaths as it was not so generally used. I saw a good many cases with other physicians, where the "open" method of treating pneumonia was pursued and aspirin, etc., were given. Patient would be blue all over, respirations 50 to 70 per minute, pulse 120 to 160, with a normal temperature, and this temperature had been normal, in several cases, for from 1 to 3 days. They died in a few hours. Comment is not necessary.

Quinin appears to be a preventative of influenza. I noticed that a good many people who were taking a remedy, "666," which contains quinine sulphate, did not have the "flu."

Recurrence next winter has been predicted and it appears reasonable to expect it. If you will study the history of influenza and refer back to the pandemic of 1831, you will see from its appearance, then and later, that there is just cause for study and investigation during the lull. The pandemic of 1831 recurred in 1833, 1837, 1847, and again in 1889-90. After the pandemic of 1847-48 there was a pause before the pandemic of 1889-90, of 42 years. There has been an interval of 28 years, except for some epidemics, since the pandemic of 1889-90.

Congress has been petitioned by the Legislature of the State of Ohio to appropriate an amount not less than $5,000,000 to be devoted to a study of the cause and treatment of Spanish Influenza, since medical experts are not agreed either as to the origin or the proper mode of treatment (Congressional Record, February 14, 1919, p. 3472.)

CONCLUSION.

I cannot refrain from referring to the first meeting of the Jefferson County Medical Society in November, 1918, after the

closing ban had been raised by the Boad of Health, when one of our members, in discussing the "flu" situation, referred to the vaccin treatment in general, and that of influenza and pneumonia in particular, in a scoffing and jocular manner, and was so feelingly applauded by a large number of those present. I shall have to remind you in conclusion that I was called upon to discuss the situation, that I told you of my having used the vaccins for some years and that I was using them with success in the present pandemic. I am wondering tonight how many of you "doubting Thomases" have had to get on the band wagon, as I predicted.

THE EVOLUTION OF A SUCCESSFUL TREATMENT FOR THE COMPLICATED CASES OF INFLUENZA.

By J. FRANK POINTS, M. D., New Orleans.

The treatment of Spanish influenza was no less a puzzle to the medical profession than its multifarious ways of invading the human system was a revelation. Before its whirlwind onset, cyclonic progress, and hurricanic destruction, physicians looked about for a remedy to check the dread monster but without avail, and many times and often did they change their modes of attack in efforts to stop the awful scourge.

During the two flu epidemics in New Orleans, October, 1918 and January, 1919, I treated 433 cases of influenza and 73 cases of flu pneumonia of which I have kept records, and the different therapies I followed in handling these cases I here propose to relate.

I dare say I would have treated twice this number, if I had not been taken sick with the flu myself right at the height of the first epidemic in October, and was confined to my bed for twenty-eight days, and thereby deprived of giving my aid to the multitudes that were appealing for help.

I have divided the 433 recorded cases into three distinct groups, based on different methods of treatment I followed at different periods of the disease. The cases I treated from the outbreak of the first epidemic until the middle of October, when I was stricken myself, I have classed as the Acetanilid-Aspirin group of cases, because my leading prescription to control pain, headache and fever at first contained codein sulphate; gr. ¼; acetanilid, grs. 2 and one-half; quinin sulphate, gr. 1; salol, gr. 1; caffeine citrate,

1. Later on this was substituted by a capsule containing two and one-half grains of quinin and two and one-half grains aspirin. With these prescriptions as my leaders, I treated 238 cases. Of this number 31 developed or had pneumonia and 11 died. Of the 11 pneumonias that died, three were moribund when I took charge of them, and four others I had to leave right after they developed pneumonia, because I was taken sick myself, and they either could not get another physician to take charge of them, or were so far gone when they did, that it was impossible to save them. Deducting these seven cases from the others leaves a real mortality of four out of 24 or a loss of 16 2/3 per cent of pneumonia patients or a gross flu mortality of 1 7/10 per cent. Amongst these 31 cases of pneumonia were four cases of pregnancy all of which recovered. Of the 238 cases, two had cholecystitis, one gangrenous stomatitis, one hemorrhage of the stomach, three hemorrhages of the bowels, four hemorrhages of the womb, ten hemorrhages of the nose, one empyema, and nearly all coughed up and expectorated blood freely.

The nausea and vomiting were relieved in all groups of cases by 1/16 gr. cocain in 1 drachm elixir lactopeptine. I started out at first by giving all patients a hot mustard footbath, and had them covered warmly and given a cup of hot tea to get them into a perspiration. They were afterwards given the capsules to reduce fever and to control pain. They perspired freely, too freely and were almost drowned in their own secretions. The acetanlid added diaphoresis to an already freely acting skin, and they perspired the more. This left patients profoundly depressed and I sadly began to realize that my old method of treating grippe would not apply here. The footbath and hot packs were discarded, and the capsules tried by themselves with a little betterment of condition. But the perspiration, depression and cyanosis continued, and, in spite of the demand from the family to relieve the fever, I withdrew the acetanilid capsules, and began giving a capsule of aspirin and quinin grs. 2½ each. But this also produced severe perspiration, and depression that was exhausting, and I eventually cut the dose down to 1 grain of quinin and 1 grain of aspirin.

Digitalis was used when indicated. All cases in all three series were given an expectorant cough mixture, and hemorrhages were controlled with adrenalin and morphin and ergot. The most distressing conditions in the severe cases were insomnia and extreme nervousness, running into delirium and often terminating in

temporary insanity. Realizing that the essential aim in treating any disease is to produce rest, I overcame sleeplessness and at the same time nervousness by the hypodermic injection of morphin sulphate gr. ¼ wherever it was indicated. By injecting morphin and inducing sleep half the battle was won. Invariably the patient would be better next day after a good night's rest. When indicated, where edema of the lungs was severe, atropin sulphate gr. 1/100 was added to the dose with remarkable results. To further induce rest and keep up the good results produced by the morphin, bromide of soda, grs. xx, was given every 2 or 3 hours, when necessary.

Drastic purgatives such as calomel, salts and castor oil as a rule made patients worse. I used these drugs in the beginning of the epidemic, but I soon put them aside altogether. Patient's bowels were kept open with enemata and seidlitz powders.

The second group of cases, the Digitalis group, includes all cases of flu treated by me from the time of my recovery in November up to and including January 20, 1919. I called this the Digitalis group, because digitalis was given to each and every case treated in this series from the time of its incipiency to such time as I thought it safe to discontinue the use of the drug.

My observations in the early part of the epidemic drew my attention to two main points, the extreme cyanosis, amounting to almost blackness which led me to conclude that there was a paralysis of the pneumogastric nerve centers, and the fact that the pulse remained slow in the early stages of the disease, and that when it got up to 100, it was getting bad, and at 120 it was at the danger mark. I also observed that, if I did not get this pulse below 120 at once, the patient inavriably grew worse and died in a few hours. In fact many of those who died, died with a pulse of 120. Hence I conceived the idea that, if I would give Digitalis to all those patients and strengthen the heart, and keep the pulse down below 100, as nature seemed to be making an effort to do, I would do the best thing towards getting them well.

I treated 130 cases by this method, 33 of which had pneumonia, and 4 of which died. A mortality of 12 1/8 per cent for the pneumonias and a flu mortality of 3 1/3 per cent. Amongst this number were three cases of pregnancy, all of which recovered, two having had pneumonia. Two cases had cholecystitis, one case appendicitis, and three cases phlebitis. The doses of digitalis were regulated as follows: adults with a pulse of 80 were given 2 drops

every 3 hours, children under 8, one drop; adults with a pulse of 90, three drops, children under 8, two drops; adults with a pulse of 100 were given five drops, children under 8, three drops; adults with a pulse of 110 to 120 were given ten drops, and children under 8, five to six drops. When the pulse reached 120 patient was given ¼ grain morphin sulphate hypodermatically and children were treated likewise according to age. The result was that the pulse was kept under control and patient got better. The same expectorant cough mixture was used and the same treatment followed for nausea and vomiting. Aspirin gr. i and quinin gr. i were given every 3 hours for temperature 101° or more and ice caps kept to the heads. The results of this treatment were more satisfactory and encouraging than the other, and there was not the severe depression nor the high mortality that accompanied the acetanilid and aspirin-quinin group.

Along about January 20, I treated a case of flu pneumonia complicated by a ruptured appendix. The patient developed acute nephritis, ran 20 per cent of albumen and passed large quantities of blood from the kidneys. Having had some previous experience with intravenous injections of emetine in renal hemorrhages, I injected ½ grain emetine hydrochlorid into his veins. I repeated this dose in twelve hours and the effect was marvelous. The patient's temperature dropped from 104° to 101°, the hemorrhage ceased, his cough became better, and his pulse slowed down. The following morning, patient's temperature was normal and his general condition much improved. Two injections were given that day with the results that patient's cough subsided, the congestion of the kidneys passed off, the albumen disappeared, his pulse returned to normal and he seemed cured of his toxemia. The physical signs of congestion were still present in the lungs, though not as marked. Seven days later, I opened his abdomen, through a McBirney incision, and drained off two quarts of pus from the region of the appendix. In three more weeks I discharged this patient cured.

Having noticed the beneficial effects of emetine in this case, I resolved to treat all cases of flu from that day forth with emetine, and the cases I treated after January 20 to the disappearance of the disease, I call the Emetine group and have so classified them.

In the Emetine group I treated 65 cases, 9 of which had pneumonia and 2 of which died. All of these 9 cases of pneumonia were given from one to two intravenous injections of emetine per

day. Purposely no quinin and aspirin were given and no antipyretic used. The result was the immediate lowering of the temperature from 104° to 103° to normal in from 12 to 24 hours, according as one or two doses of emetine per day were given. The temperature did not rise again and the disease was under control from that time on.

Several of these cases had edema of the lungs and were cyanosed until they were black; some were so nervous until they trembled all over and could not keep their limbs quiet, but the results after the intravenous injections of emetine were astonishing. The temperature became normal, the cough subsided, the cyanosis disappeared, and the fight was won. Of course I used my cough mixture and continued the use of the digitalis as outlined in the preceding group of cases. Morphin and atropin were used hypodermatically for sleeplessness, nervousness, and edema. Basham's mixture was used for cystitis and nephritis. But the remarkable result was the rapid control of the temperature and the toxemia, and the rapid clearing up of the whole picture after the use of emetine. Only two patients with pneumonia died in this group, and they were moribund when I got them. One had already been sick a week, and her family persistently refused to let me use this treatment until the night before her death; and the other had been sick five days before I got hold of her, and was already well advanced in pneumonia when given the first dose. Even then the beneficial effects of the drug could be seen. The patient's temperature dropped, and they seemed better for a while, but the delirium and coma steadily grew worse and they passed off.

I was so encouraged by the good effects of emetine, when given early enough, that I resolved to use it in all the flu cases. But here I met with a new obstacle. People who were not very sick objected to being stuck with a needle, and preferred to wait until they would grow worse to try it. But notwithstanding this opposition and the big demand on my time from numerous calls and office work, I succeeded in administering the drug once a day to seventeen simple, uncomplicated cases with these results: The emetine had no effect whatsoever on the non-complicated cases of influenza, not only not reducing the fever, but not controlling any of the symptoms. The disease in these cases ran a course of 3 to 5 days. But none of these cases developed any complications whatsoever from the flu, whereas some of the simple cases, that at first

refused the intravenous injections of emetine, later on developed pneumonia and were saved by the drug. One of these simple cases, that refused the injections developed a good attack of cholecystitis, which was instantly relieved by the emetine treatment.

My mortality with the emetine series of cases was virtually nil, for the two cases that did die were beyond hope when the drug was given.

It was not always easy to get into the veins, but in such cases I simply gave the injections subcutaneously with the same good results. Some afterwards complained of sore arms from these subcutaneous injections, therefore I would advise that when the vein cannot be entered readily, the injections be given intramuscularly.

Each case treated with emetine received six injections, given from twelve to twenty-four hours apart, according as my time would permit my seeing the patient once or twice a day.

Unfortunately I did not use the emetine treatment sufficiently early in the epidemic to determine its true value. The disease was on the wane when I began to use it, so whether or not it would produce the same marvelous results in all cases as it did in these is a question.

This problem now presents itself to my mind: Is emetine a cure for the complicated cases of Influenza?

INDUCTION OF ANESTHESIA AND ANALGESIA BY ORAL ADMINISTRATION OF VARIOUS DRUGS, WITH A REPORT OF CASES.*

By A. FICKLEN, M. D., New Orleans.

The problem of dressing extensive wounds has always presented difficulties to the surgeon. He must be thorough, but he hesitates to inflict great pain on the patient. Morphin, ether, chloroform, and nitrous oxide have all been used to lessen the ordeal, but each has its disadvantages. Morphin is not sufficient; ether by inhalation causes nausea and is regarded with dread by most patients who have taken it before; chloroform is dangerous. Nitrous oxide is best, but is not always available.

During the recent war I saw dressing after dressing in which

* Read at Meeting of Orleans Parish Medical Society, October 13, 1919. (Received for publication December 16, 1919—Eds.)

the surgeon took advantage of the stoicism of the soldier and inflicted pain that could have and should have been avoided. The removal of packs, the changing of splints, the manipulation of infected joints:—the wounded man feared these more than he had feared the charge of the enemy. When the intoxication of battle had passed, gentleness in handling the casualties became more necessary than ever, but care, hypodermics, and irrigation of bandages beforehand all failed only too often. For this reason I welcomed an article which appeared in the May number of the bulletin of the American Red Cross, on analgesia by oral administration. I found later that this was condensed from a report in the *British Medical Journal* of March 2, 1918, by Dr. James T. Gwathmey of New York and Dr. Howard Karsner of Cleveland. The *Journal of the A. M. A.* of April 6, 1918, also prints this most interesting analysis of experiments on animals, and results in clinical cases.

As this is primarily a summary of experiences with the method I will not go deeply in the animal experiments. Suffice it to say that various drugs were given to rabbits by stomach tube and that 50 per cent ether in olive oil was found to produce the desired effect. The olive oil, however, caused an acute gastritis in rabbits, so liquid petrolatum or Russian mineral oil was substituted. Quinine and urea hydrochloride, trional, morphine tartrate, and paraldehyde were all tested, but the results did not warrant use in man. The fact that ether drinkers suffer no more than alcoholics from gastric irritation and that "a 65 per cent solution of ether in oil has been used in many thousands of cases of oil ether colonic anesthesia without any signs of local irritation to rectum or colon" reassured the authors.

The following formulas were used clinically:

Formula 1. Ether 4 fluid drams,
Liquid Petrolatum 4 fluid drams,
Peppermint water 5 minims.

Formula 2. Paraldehyde 1 to 3 fluid drams,
Ether and liquid petrolatum equal parts to make 1 ounce,
Peppermint water 5 minims.

Formula 3. Ether 3½ fluid drams,
Liquid Petrolatum 4 fluid drams,
Peppermint water 5 minims.

Formula 4. Chloroform ½ to 1 fluid drams,
Ether 3½ fluid drams,
Liquid Petrolatum 3½ fluid drams,
Peppermint water 5 minims.

Method of administration:

The authors recommend, at the suggestion of Major Lower, that port wine be given before and after the dose. They state that rinsing the mouth thoroughly with the wine disguises the taste of the drug effectively. Our medical supplies did not include port, so I substituted undiluted whiskey. Probably yerba santa could be used to better advantage. The taste of Formula 4, as I know from experience, while pungent, is not as unpleasant as that of castor oil.

Approximately sixteen cases are reported in most of which ether liquid petrolatum was given. One vomited, three fell into a light sleep. The administration of a half dose gave unsatisfactory results. Extensive dressings were done without pain, the patients had no headache and woke with good appetites. The authors also mentioned that Formula 4 was given in approximately thirty cases, and that it is a more satisfactory mixture than the others. Detailed case reports, however, are not presented.

Ether oil by mouth was also used as a supplement to chloroform anesthesia. An extensive operation on the knee joint was performed in this way with the use of only two drams of chloroform.

Since the literature on this subject is so scanty at present, I wrote to Dr. Gwathmey asking if his subsequent experiences had caused him to modify his opinion in any way. I quote from his reply:

"In addition to the inclosed (a reprint from the **British Medical Journal**) I finally used this formula quite frequently:

Chloroform drams 2,
Ether drams 2,
Liquid paraffin 4 to 6 drams,
Peppermint water 5 minims.

If the dressing was very painful I used in connection with this morphine sulphate, grain ¼ to ⅜, by hypo, one-half to three-fourth hours before. With this combination there was no question about the analgesia. Operations with this combination were not entirely successful. I may add that three of the officers and myself took Formula 1 immediately after a very hearty meal, and as a liqueur, and with no bad effects whatever . . . . . and with analgesia, so it seemed to us."

Gwathmey's recent experiments have demonstrated that chloroform given by mouth has dangers. Until his report appears I am not at liberty to go into details.

Clinical Phenomena: Approximately half of the patients had a short stage of excitement manifested by restless movements and loud talking. This lasted from three to five minutes and was succeeded by deep sleep and complete muscular relaxation. The pulse was full and bounding and ranged from 80 to 100. Many of the patients fell asleep in five minutes and did not rouse for several hours. The face was slightly flushed or normal in color. Dressing was started in from 5 to 25 minutes. In about one-third of the cases the breathing was deep and stertorous, in the rest it was slow and regular but not snoring. Two of forty personal cases did not sleep but had pronounced analgesia. On questioning these two the next day I found that they had little recollection of pain. This is parallel to the loss of memory following morphin scopolamin administration. In particularly extensive wounds and twenty minutes before operation, I gave a hypodermic of morphin, grain 1/6. This is a useful adjuvant but is not absolutely necessary. Gwathmey and Karsner state that their patients fell into a light sleep. Most of my cases slept profoundly and many of them gave absolutely no signs of pain during the removal of tight packs or the changing of splints. This is due to the fact that I used the following prescription, taken from the American Red Cross bulletin:

Formula 5. Chloroform 5 c. c.
Ether and Liquid petrolatum, each 20 c. c.

With this prescription, which is obviously more powerful than ether oil, I estimated that the maximum effects lasted from one-half to three-fourths of an hour. After an hour the patient rouses easily. Groaning was noted occasionally but had no significance. I did not test the total duration of analgesia, which probably presisted from some time after the anesthesia had worn off. Most cases slept for two or three hours and one as long as five hours. All were drowsy even though they were able to answer questions. Four or five complained of the taste of the mixture but were willing to take it again for its effect. This is the usual attitude of human beings towards intoxicants.

The following case reports will give a more vivid idea of the results obtained:

S. C., aged 23, weight approximately 150 lbs., gunshot wound, high explosive, right frontal and parietal region, extensive comminution skull, loss of brain substance and avulsion eye-ball. Debridement and packing extending deep into cranial cavity. Oral anesthesia third day. 5 minutes after administration patient made a few restless motions and breathing became stertorous. He did not respond to questions. The bandages were cut and the edge of the pack cautiously retracted. The patient did not move. This was my initial case and I proceeded cautiously at first, but grew bolder as I approached the depths of the wound. The pack was removed, fresh gauze placed in the orbit and into the gaping cavity in the skull. The patient showed absolutely no signs of discomfort. He slept all the rest of the afternoon, about three hours, and had to be awakened for supper. Two days later the dressing was repeated with the same technique and the same result. He was then evacuated but I was fortunate enough to see him up and around six weeks later at Base Hospital 24.

J. D., aged 24, weight 145, hemolytic streptococcus infection left knee following injury in R. R. accident. Dressings in this case necessitated reflexion of the joint and were extremely painful. Oral anesthesia was used on seven different occasions. Unconsciousness always followed within 15 minutes. Drains were removed, splints changed and new tubes inserted with no sensation on the part of the patient. There were no after effects whatever. The patient asked for the mixture. He remained six weeks in the hospital and was evacuated much improved. The septic process had been arrested and he had gained materially in weight. This case shows that the ether and chloroform mixture may be given repeatedly without deleterious effects.

H. G., aged 20, weight 130, intensely nervous, circular amputation upper third leg for mixed infection hemolytic streptococcus and B. Welchii, cuff of skin turned up, flaps left unsutured, oral anesthesia, third day after operation. Patient groaned and complained in a low voice during dressings, answers to questions were vague. Had almost no memory of dressings and no recollection of pain afterwards. This case hovered on the border line bteween analgesia and anesthesia.

The following case shows the advantage of ether chloroform by mouth as a supplement to ether by inhalation:

P. G., aged 20, weight aproximately 120, gun-shot wound, right ankle, hemolytic streptococcus infection, compound comminuted fracture tarsus, amputation decided on in consultation with the chief of surgical service. Oral anesthesia in ward. After 15 minutes patient carried to operating room, splint removed, leg shaved and washed thoroughly. Patient slept tranquilly. Ether drop method started during applications of iodine and incision made after a few c. c. had been poured on mask. A modified circular amputation was done with suture of the flaps. At the conclusion of operation it was found that only 90 grams of ether had been used. The patient did not vomit and slept for three hours afterwards.

Case 5. One-half the normal dose was given to this patient. He entered the hospital profoundly septic. His weight was about 70 lbs. and recovery was obviously impossible. He complained bitterly during the dressing, was wide awake and seemed to have no analgesia whatever. He slept for two hours afterwards and did not vomit. 10 c. c. of ether and 2½ c. c. of chloroform was apparently too little.

S. G., aged 21, weight approximately 100. Empyema following pneumonia. General condition bad. Ether chloroform given on operating table. Asleep in 10 minutes. Two syringefuls ¼ per cent novocaine injected into chest wall. Resection one inch 5th rib mid-axillary line. Patient did not complain but coughed when pleura was opened. Drainage tubes inserted, binder applied, and patient returned to ward sleeping. Apparently little shock.

The above illustrate the different types of reaction to the lungs. One case vomited almost immediately after swallowing the mixture, and Dr. Philip Carter reported a similar occurrence. The undiluted whiskey was perhaps to blame. Dr. Lacroix used the method on four or five patients with most satisfactory results. Therefore the summary which follows represents the conclusions formed after observation of about forty-five patients. As record keeping was impossible during part of the time, I have underestimated rather than overestimated the number seen personally, judged to be forty.

Summary.

Ether chloroform and liquid petrolatum when swallowed in the quantities stated produce a safe general analgesia, accompanied in nearly all cases by light anesthesia.

Vomiting occurs in a small proportion of cases.

Alarming symptoms have never been observed.

The effects of the drugs are intensified and prolonged by the administration or morphin.

The ether oil mixture is not as powerful as the formula to which chloroform has been added. This conclusion is reached by comparing the case report of Drs. Gwathmey and Karsner with my own.

The field of usefulness of the procedure should be broadened. Enough cases have already been observed to show that it is of value in painful dressings and as a supplement to general anesthesia. It has not been used, as far as I have been able to ascertain, in gynecological examinations where relaxation is necessary, in suspected malingering, in manipulation of ankylosed joints, nor in obstetrics.

Since the method is yet in its infancy, further tests should be made to determine its status in surgery, and the above suggestions are made with this in view.

I am indebted to Dr. Gwathmey for the interest he has taken in this report.

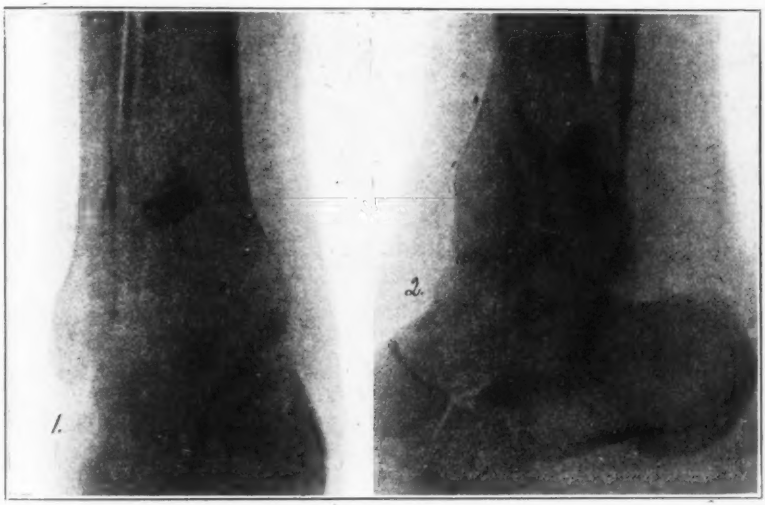
Discussion.

Dr. Jno. Smyth: Charles Baskerville, Professor of Chemistry at the College of the city of New York, in his study of the chemistry of In-

halation Anesthetics and Anesthetics in general, has shown that the rate of evaporation of ether in oil is constant minute by minute (Gwathmey) and as the ether and oil mix perfectly, it would seem impossible for the patient to get an overdose at one time and an insufficient amount at another.

Gwathmey and Karsner state that "only a slight analgesia is obtained which for operative procedures must usually be supplemented in some way," and that the total amount of the oil-ether mixture that may be safely given, has not yet been determined.

As Dr. Ficklen has stated, the mixture he adopted is stronger than the formula finally used by Gwathmey and Karsner and such of his cases as have come under my observation showed slightly more pronounced and more satisfactory analgesia than those which Dr. Gwathmey reports.



In our clinic before the medical students this morning, we removed a bullet (Fig. 1 and 2)) from the lower end of the tibia, under supplemented oral analgesia. This patient, colored male, 24 years old, was given a hypo. of morphin ¼, atropin 1/50, at 9.05 chloroform-oil-ether mixture at 9.20. At 9.40, the skin over proposed incision was tested with a needle and seemed to be sensitive. Infiltration with ½ of 1 per cent apothesin, after which a 3 inch incision was made to the bone over lower anterior tibia. Use of Hudson burr to ream out track of bullet in the bone produced apparently some discomfort (patient could see this instrument), whereas Rongeur forceps did not cause any pain unless they snapped. Pressure to dislodge the bullet caused slight pain; one of the three skin sutures seemed to be sensitive to some extent.

After operation was completed, the patient said that he had very little pain but that he was afraid of being hurt. He did not seem to

be able to discriminate between touch and pain. Left the operating room smiling, in possession of the bullet and free from any discomfort.

Dr. J. T. O'Ferrall: I would like to make a few favorable remarks about Dr. Ficklen's paper with reference to oral anesthesia. I had charge of a Carrel-Dakin surgical service for four months and we all know the dressings in those cases necessarily cause great pain. During these dressings, I used this formula originally gotten out by Gwathmey of 3½ drachms ether, one drachm chloroform and 3½ drams of Liquid Petroleum. This was followed by wine. In no case did I have trouble The majority of patients ate luncheon immediately after waking up. My observations correspond to Dr. Ficklen's in regard to the length of time the patient sleeps. In one case I had to supplement this with general anesthesia. It was because we found the patient had taken a number of drinks every day all his life. I would like to impress upon you the necessity of questioning the patient in regard to the use of alcohol. We used this anesthesia for all types of cases, except for amputation. I think it is very valuable.

Dr. King: I would like to have Dr. Ficklen explain why wine should be administered before and after giving anesthesia.

Dr. Ficklen (closing): In answer to Dr. King, the port wine is used to rinse the mouth before and after the administration of the ether oil mixture merely to disguise the taste. It was suggested by Major Lower, and nicknamed by Dr. Gwathmey "the Lower sandwich." Dr. Parham asked for the formula. It is as follows:

Chloroform 5 to 10 cc. ether and liquid petrolatum or Russian mineral oil each 20 cc.

PROCEEDINGS OF THE AMERICAN SOCIETY OF TROPICAL MEDICINE

ATLANTIC CITY MEETING, JUNE 16-17, 1919.

BLOOD PRESSURE IN YELLOW FEVER.*

By J. BIRNEY GUTHRIE, M. D., Professor of Clinical Medicine, Tulane University, New Orleans.

The only recorded observations on blood pressure in yellow fever in the literature previous to 1909, when the author presented before this society, a report of his findings, are those of Ferrari of Brazil (Brazil-Medico, 1903), and Paul Azevedo (Inaugural thesis, Rio de Janeiro, 1903), who quoted Ferrari's work. Azevedo noted a progressive drop in the blood pressure beginning with the first hours of the disease. During the first day, he recorded an average blood pressure of 114 mm (mercury) measured by the sphygmomano-

* Read by title. Proceedings of the American Society of Tropical Medicine Meeting, Atlantic City, New Jersey, June 16-17, 1919.

meter of Potain. He found also a gradual fall to as low as 107 mm in the fatal cases. During convalescence, a gradual elevation to normal was observed. Azevedo further discusses Ferrari's statement that during the first 24 hours of the illness a blood pressure of 126 mm or 128 mm, constituted an important diagnostic factor. Azevedo considered blood pressure as of no diagnostic value in yellow fever.

The opportunity for the investigation of blood pressure in yellow fever, came to the writer in 1905, while resident physician in the Emergency Hospital in New Orleans. The hospital was located in the heart of the infected district, and the patients were mostly Sicilians, who spoke little English, being new arrivals from Italy. The hospital was established by the citizens of New Orleans and was retained by the United States Public Health Service, which took charge of the situation in New Orleans. The hospital was opened in the latter part of July, 1905, and operated until November of the same year.

The instrument used by me in this series, was Cook's modification of the Riva-Rocci sphygmomanometer with the 10 c. m. arm band; and the pressure recorded is in all cases systolic. Observations were made twice daily on most of the cases treated during the time of operation of the hospital. This was done as a matter of routine on all patients. Of course, it is to be regretted that the diastolic pressure was not taken likewise in every case; but with the instrument used, it would probably have been a useless labor.

Blood Pressure Chart: In order to study the graphic curves in relation to the curves of temperature, respiration and pulse, I designed a chart in which the blood pressure and pulse beats per minute were put into the same section of the chart, and so arranged that whenever the blood pressure in millimeters equalled the count of the pulse beat per minute, the curves would osculate. Whenever the blood pressure in millimeters fell below the number of pulse beats per minute, the two curves would intersect. Thus platted, the relation of the two curves, blood pressure and pulse, seems instructive.

Observations from the Charts: It was found that the curve of blood pressure to a very great extent paralleled the pulse curve with a distinct interval between, in the male adult. In women and children this interval was lessened. Here touching and interlacing of the two curves was much more frequent. The interval between

the two curves is the most striking fact exhibited on the yellow fever chart of a male adult. Here is a gradual decline of pulse and blood pressure curves, even with a rising temperature. This progressive fall in pulse rate has already been described. Faget's diagnostic point, a rising temperature and a falling pulse rate, is of great value in diagnosis. After some experience in observing these charts, I became suspicious of error in the diagnosis on finding a continued interlacing of the two curves. This circumstance suggested an ordinary septic origin. The paralleling of the two curves constitutes a diagnostic factor of no little importance. My observations confirm Azevedo's findings as regards the progressive fall in the blood pressure from the first day, and contradict those of Ferrari as to the diagnostic value of a blood pressure finding. A complete chart of average blood pressure in 45 cases of mild, severe, and fatal types, shows no elevation above normal on the first day, the average for this series being 118.2 m, a figure a little higher than Azevedo observed. Cases were seen in which on admission the blood pressure during the first 24 hours was above this average normal; but I am convinced that this was due to pain, or to some psychic factor, such as excitement, fear incident to the moving to the hospital, etc.

Summary of fatal cases as regards touching or crossing of blood pressure and pulse curves:

1. Crossing or touching.	Number of Cases.	Percentage.
(a) Crossing or touching day of death.....	3	8.8
(b) Crossing or touching day before death	9	26.4
(c) Crossing some time previous to day before death	4	11.7
(d) Touching at some time previous to day before death	3	8.8
(e) No crossing or touching at any time recorded	15	44.1
Totals.....	34	99.8

Of the above series of fatal cases, 19 or 55.7 per cent showed touching or crossing of the pulse and blood pressure curves.

The highest recorded blood pressure at any stage of the disease was 275 mm, and occurred during a chill. The lowest was 50 mm. Both of these cases recovered.

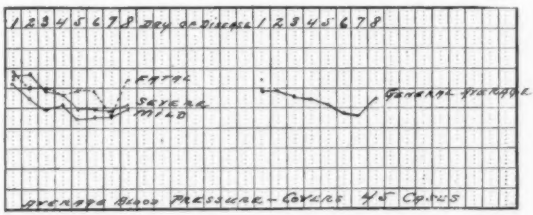
The factors contributing to the lowering of the blood pressure during the course of yellow fever are: vasomotor dilatation;

myocardial degeneration; slowing of heart from vagus stimulation due to jaundice; or due to the effect of the bile substances on the heart itself; low diet; rest and later, hemorrhages from mucous surfaces, the result of fatty arteritis.

The continued hemorrhagic tendency is due to vasomotor conditions and capillary degeneration rather than to any dimunution of the coagulability of the blood. This, of course, is increased if the blood pressure elevated. The coagulation time as measured with Wright's coagulimeter was normal in all cases tested by me and by Louis H. Marks, who carried out a series of observations on this subject at my suggestion. (*Am. Jour. Med. Sc.* Vol 132, p. 705). The dreaded black vomit is, in its blood pressure lowering result, to an extent protective. However, the act of vomiting greatly raises the blood pressure, and the more or less diffuse meningeal hemorrhage found in every one of the autopsies in the Emergency Hospital results. The patient dies, not of black vomit *per se,* but as the result of meningeal extravasation.

The thought suggests itself that the occurrence of nephritis, very much more frequent and intense in the severe cases, may account for the higher blood pressure in the severe and fatal cases.

A single observation of blood pressure is of no value; but the record day to day is vastly instructive in yellow fever. I disagree with Azevedo who considered the blood pressure as "of no diagnostic value." Many of my charts show that, taken in conjunction with pulse curve, a characteristic paralleling occurs often. This is not even seen in typhoid where considerable slowing of pulse occurs. I have observed no constant rise of blood pressure on the first day; but rather a progressive fall from this time to a level lower than normal.



To study the average blood pressure curves in a series of cases, I platted three curves, utilizing the chart above referred to; one of fatal cases, one of severe cases, and one of the mild types of the disease, each extending through 8 days, this period being the average duration of the disease in the fatal cases.

A duration of initial febrile paroxysm longer than 48 hours, high fever after first 24 hours, severe albuminuria, hemorrhage from mucous surfaces, severe jaundice, very marked stasis, or cerebral symptoms—any one or more of these served to put the case in the class of severe rather than mild types of the disease. Laid out together on the chart, the average blood pressure curve of the mild cases was lower than either of the other two and did not touch or cross them during the eight days. The curve of the severe cases touched that of the fatal cases five times.

Prognosis: The crossing or touching of the two curves, in the individual charts, is apparently significant as a prognostic sign, but only when the blood pressure curve crosses the pulse curve from above downward. Where the blood pressure was very low to begin with and the pulse, high, the crossing of blood pressure curve from below upward was occasionally seen and was of no import, so far as we could see.

I am forced to the conclusion that a low average blood pressure is a favorable prognostic sign of no little importance, and that platted to the same spaces, the crossing or the touching of the two curves of blood pressure and pulse is of grave significance in a case in a male adult where there is no doubt as to the diagnosis of yellow fever.

The falling blood pressure is a protection to the weakened vessels, and is the keynote to treatment of the disease. Many cases of death from saline intravenous infusion done in ignorance of this fact are recorded. The favorable prognostic value attributed by some of the older physicians to tarry stools, which result from intestinal hemorrhage, may be the expression of an idea that other hemorrhagic accidents are thereby averted.

The axiomatic precautions observed during illness and convalescence find their rationale in the consideration of blood pressure. The prohibition of overeating, exercise, sexual intercourse, psychic factors, such as grief over bad tidings, etc., all of which have brought on black vomit, are justified.

In the writer's opinion, therapeutics must be directed to regulating this blood pressure. I have seen cases die that I believe had received too much fluid. Some of these might have been saved by restricting liquids. It is quite well known that an excess of fluid ingested can bring about a glomerular irritation as well as a rise in blood pressure. However, we are here between the Scylla of hemor-

rhagic accidents from a blood pressure relatively too high for the function through glomerular disease and the plugging of the renal functions through glomerular disease and the plugging of the renal tubules. The choice is difficult, and the issue, usually fatal when this stage is reached.

After discharge from the Emergency Hospital, one of the cases died with black vomit caused by indigestion following eating heartily of pea soup; another died with black vomit after going swimming in the Mississippi River.

The higher average blood pressure in severe and fatal cases as compared with the mild ones, coupled with a consideration of the pathological findings hemorrhagic in nature, forced upon me the necessity of considering the blood pressure in the therapeutic management. I do not advise that drugs which lower blood pressure should be given. Drugs play a small part in the treatment of yellow fever. However, by keeping in mind the important physical means at our command to keep down blood pressure, we can contribute a considerable factor toward the safety of the patient.

BULLETIN OF THE LOUISIANA STATE MEDICAL SOCIETY.

By P. T. TALBOT, M. D., Sec'ty-Treas.

The following information concerning the approaching meeting of the American Medical Association in 1920 is offered with the hope that it will interest the members of the Louisiana State Medical Society. These items of information have been prepared by Dr. H. P. Jones, Chairman of the Publicity Committee. I would respectfully request that the members of the Louisiana State Medical Society read them very carefully and if there is any further enlightenment on the subject required, communicate with the Chairman of the respective Committee. These Committees are very anxious for the opportunity to give any information concerning their plans or expectations in their arrangements for the meeting.

Report.

The New Orleans Meeting of the American Medical Association, April 26th to 30th, 1920, promises to be one of the most successful and satisfactory meetings ever held, and inasmuch as the State Medical Society is to take a very individual and im-

portant part in bringing this happy conclusion about, every effort will be made to keep the members informed as to arrangements and plans.

The Hutchinson Memorial Building, Tulane Medical College, on Canal Street, will be the headquarters and all meeting places will be located as much in this vicinity as practicable, thus making all sections within easy walking distance of headquarters and the clinical centers.

The Commercial Exhibits will be provided for in pavilions to be erected on the Campus of the Hutchinson Building Headquarters, and will occupy about 11,000 square feet of floor space.

At a recent meeting of the various chairmen of the Local Committee on Arrangements, a list of whom is given below, in consultation with Dr. Alexander R. Craig, Secretary of the A. M. A. all plans submitted were approved, and great enthusiasm was expressed.

There will be ample accommodation for all, either at the hotels or boarding houses. Every organization interested in making this meeting a success is actively and enthusiastically engaged in making preparations for the comfort and entertainment of what is confidently expected to be the largest number of attendants ever had by the American Medical Association.

The following list of Chairmen of Committees is furnished for the information and convenience of any interested, and with the assurance that any communication addressed to them will receive prompt attention.

LOCAL COMMITTEE ON ARRANGEMENTS, A. M. A.

Dr. A. E. Fossier, Chairman, 921 Canal Street, New Orleans, La.
Dr. T. J. Dimitry, Secretary, 3601 Prytania Street, New Orleans, La.
Dr. Paul J. Gelpi, Treasurer, 931 Canal Street, New Orleans, La.

SUB-COMMITTEES.

Advisory.
Dr. Charles Chassaignac, Chairman, 211 Camp St.

Section Meetings.
Dr. Homer Dupuy, Chairman, 124 Baronne St.

Registration.
Dr. Hector E. Bernadas, Chairman, 124 Baronne St.

Finance.
Dr. J. W. Newman, Chairman, Touro Infirmary.

Entertainment.
Dr. Amédée Granger, Chairman, 830 Canal St.

Halls and Meeting Places.
Dr. William Seemann, Chairman, 830 Canal St.

Scientific Exhibits.
Dr. C. C. Bass, Chairman, 1551 Canal St.

Commercial Exhibits.
Dr. W. H. Block, Chairman, 921 Canal St.

Publicity.
Dr. Hamilton P. Jones, Chairman, 3601 Prytania St.

Transportation.
Dr. H. W. E. Walther, Chairman, 830 Canal St.

Signs and Placards.
Dr. E. L. Leckert, Chairman, 830 Canal St.

Hotels.
Dr. J. J. Wymer, Chairman, 921 Canal St.

Badges.
Dr. J. Birney Guthrie, Chairman, 921 Canal St.

Information.
Dr. Allan Eustis, Chairman, 3621 Prytania St.

Golf.
Dr. John B. Elliott, Jr., Chairman, 931 Canal St.

Membership.
Dr. Wm. M. Perkins, Chairman, 830 Canal St.

Women Physicians.
Dr. Elizabeth Bass, Chairman, 3513 Prytania St.

Printing.
Dr. W. H. Knolle, Chairman, 124 Baronne St.

Clinics.
Dr. Herman Gessner, Chairman, 921 Canal St.

NEWS AND COMMENT

ORLEANS PARISH MEDICAL SOCIETY ELECTS OFFICERS.—The election of officers to serve during the year 1920 was held by the New Orleans Parish Medical Society on December 13, at their home, and resulted as follows:—President, Dr. H. E. Bernadas, re-elected; vice-presidents, 1st, Dr. H. P. Jones, 2nd, Dr. Jerome Landry, 3rd, Dr. J. M. Hountha; secretary, Dr. E. A. Ficklen; treasurer, Dr. F. M. Johns; librarian, Dr. S. Chaille Jamison: additional members board of directors, Drs. M. P. Boebinger, I. I. Lemann, and T. A. Maxwell; delegates to the Louisiana State Medical Society, Drs. Geo. S. Bel, S. M. Blackshear, Allan Eustis, F. M. Johns, L. H. Landry, E. L. Leckert and W. H. Seemann.

The contest was spirited and lasted from 10 o'clock in the morning until 8:30 at night, and the final count was not completed until midnight.

KINGSLEY HOUSE OPENS CLINICS.—A maternity clinic was opened at the Kingsley House on December 16, under the direction of Dr. Philip J. Carter and Miss Grete Judice, nurse of the Child Welfare Staff. This is one of five clinics which will be operated under the auspices of Kingsley House and the Child Welfare Association, as the first step in a health campaign on the preventive plan. Although the canvass of the neighborhood is not complete, 400 patients have already been registered. The next clinic will be for tuberculosis. A complete census of the neighborhood will be taken and will include the number of dwellings, the number of families, the adults and infants in each family, and the dominant racial strain. Following the census, there will be a general examination of all persons in the neighborhood. A series of day and evening clinics will be held. The clinics will be under the direction of a board of specialists, including Dr. Allan Eustis, general physical examination clinics; Dr. R. C. Lynch, ear, nose and throat; Dr. George S. Bel, heart and lungs; Dr. William Edler, venereal diseases; Dr. C. Jeff Miller, maternity service; Dr. Isadore Dyer, skin, and Dr. Haidee Weeks Guthrie, dental clinics. Those found defective will be referred to the family physician with a written report of the examination, or to a hospital or Kingsley House clinics.

THE ST. TAMMANY PARISH MEDICAL SOCIETY met in regular monthly session at Covington, on December 11, this being the annual business meeting, scientific papers and discussions were dispensed with. The reports of the various officers showed the society to be in a very flourishing condition. The exchequer is well lined and out of 24 practicing physicians in the Parish, 21 are members of the society. The society is now considering the establishment of a permanent home, with bright prospects of its accomplishment. The following were elected officers for 1920: President, Dr. A. G. Maylie; vice-president, Dr. N. M. Hebert; secretary-treasurer, Dr. H. D. Bulloch; delegate to State Medical Society, Dr. J. F. Buquoi, alternate, Dr. H. D. Bulloch; official journal, St. Tammany Farmer. By a unanimous vote, the secretary was directed to convey the compliments of the season with its heartfelt wishes for a successful and prosperous New Year to the NEW ORLEANS MEDI-

CAL AND SURGICAL JOURNAL.. Immediately following the meeting the following members participated in a luncheon, where, in an atmosphere of merriment and good fellowship, the members, for the moment, forgot their medical cares: Dr. R. B. Paine, H. E. Gauthreaux, H. D. Bulloch, N. M. Hebert, C. W. Davidson, Wallace J. Durel, J. F. Buquoi, B. B. Warren, Fred. J. Jones, A. G. Maylie and Mr. D. H. Mason of the press.

APPOINTMENTS.—Dr. Edward L. Moorhead, professor of clinical surgery, Northwestern University Medical School, has been appointed chief of the staff of Mercy Hospital. Dr. Louis D. Moorhead has been appointed dean of the Medical School of Loyola University, Chicago.

DIPHTHERIA CASES INCREASE.—Exclusive of New York City, 575 more cases of diphtheria were reported in New York State during October, than were reported in September, and 945 more than for October, 1918. One-third of the new cases were reported from Buffalo.

MEETING OF THE NATIONAL COMMITTEE FOR THE PREVENTION OF BLINDNESS.—A meeting of this committee was held in New York City, November 24. Edward M. Van Cleve, managing director, described the accomplishments of the society. The society started in 1915 with sixty-five charter members, and has now enrolled nearly 2,300 members in forty-seven states, in Cuba, Mexico, the Philippines, Porto Rico, China and Canada. Laws for the prevention of blindness have been pushed and have passed in eighteen states. Dr. Thomas D. Wood, New York, Chairman on health problems of the National Council of Education was among those who addressed the meeting. He stated that from 25 to 35 per cent. of the school children in this country have eye defects. All but a small portion of these eye defects can be remedied, but only a few of the five or seven millions of children so handicapped have had the attention they need. He advocated the periodical examination of the eyes of all school children.

NEW OFFICERS FOR SOUTHERN GASTRO-ENTEROLOGICAL ASSOCIATION.—At the meeting held in Asheville, N. C., November 10, the following officers were elected: President, Dr. Sidney K. Simon, New Orleans; vice-president, Dr. George M. Niles, Atlanta, Ga.;

secretary-treasurer, Dr. Marvin H. Smith, Jacksonville, Fla., re-elected.

NEW OFFICERS FOR SOUTHERN MEDICAL ASSOCIATION.—At the thirteenth annual meeting of the Southern Medical Association held in Asheville, N. C., November 10 to 13, the following officers were elected: President, Dr. Edward H. Cary, Dallas, Tex.; vice-presidents, Drs. Henry H. Briggs, Asheville, N. C., and Alfred L. Gray, Richmond, Va.; secretary, Dr. Seale Harris, Birmingham, Ala., re-elected. Louisville, Ky., was chosen as the 1920 meeting place.

SAO PAULO, BRAZIL, ADOPTS NEW SANITARY CODE.—A new sanitary code, the first of its kind and considered the best in Latin-America has just been adopted by the state of Sao Paulo, Brazil. The code is the compilation of all previous sanitary legislation with the necessary modification to bring it up-to-date. Dr. Arturo Neiva, one of the most prominent physicians of Brazil had charge of its preparation.

RED CROSS MATERNITY HOME HOSPITAL OPENED.—Through a gift of $10,000 from the American Red Cross, the American Red Cross Maternity Home Hospital, at Coatbridge, Scotland, was established, and recently dedicated with impressive ceremonies under the auspices of the Town Councils of Coatbridge and Airdrie. Five similar institutions have been founded in Great Britain. These institutions are devoted to helping the mothers and children of England and Scotland, where the death rate of infants, due largely to housing conditions, has been appalling.

THE CLINICAL LABORATORY OF THE DIAGNOSTIC CLINIC is now under the direction of Drs. C. W. Duval and J. A. Lanford. The clinic was established for the purpose of furnishing to physicians without the necessary facilities, all available data in obscure or complicated cases. It is the aim of the clinic to procure this with the least expense and inconvenience to the patient. After the information obtained has been discussed by the various consultants, a complete written report with therapeutic suggestions is returned with the patient to the referring physician. A single charge is made for the combined examination.

NATIONAL TUBERCULOSIS ASSOCIATION MEETING.—The 1920 meeting of this organization will be held in St. Louis, April 22 to

24, with headquarters at the Hotel Statler. As the dates immediately precede the American Medical Association meeting, and immediately follow the meeting of the National Conference of Social Work, both to be held in New Orleans, it will be found convenient to stop in St. Louis, before or after the latter conferences.

PORTUGUESE ARMY FATALITIES.—According to statistics given the *Presse Médicale,* the Portuguese army in France numbered 75,000. Of this number 6,400 were wounded, 2,000 dying and 460 killed outright; 300 died of disease. Only five deaths from typhoid were reported and not a single case of variola.

THE PENNSYLVANIA STATE MEDICAL ASSOCIATION has increased the state assessment of members to $5 per annum. Indiana and Texas have increased their state assessment to $4.

WESTERN RESERVE UNIVERSITY ENDOWMENT.—Dr. George W. Crile of the surgical staff of the school of medicine of Western Reserve Universtiy has given $100,000 to endow a chair in surgery in the school. Dr. Crile is professor of surgery in the school.

OWING TO THE H. C. L., Michigan University has increased the salaries of their teachers 25 to 30 per cent. It is stated the new scale of salaries ranges from $1,300 to $2,100 for instructors, $2,200 to $2,600 for assistant professors, $2,700 to $3,100 for associate professors, and $3,200 to $6,000 for full professors, to apply to all colleges.

THE AMERICAN ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY will hold its 1920 meeting in Kansas City, which is the birthplace and location of the first meeting of the organization now in its twenty-fourth year. At the recent meeting Dr. Hal Foster of Kansas City was elected vice-president, and Dr. Joseph Lichtenberg, also of Kansas City, was appointed chairman of the committee of exhibits.

THE SOUTHERN SURGICAL ASSOCIATION held its annual session in this city December 16 to 18. The following officers were elected to serve during 1920. President, Dr. Willard Bartlett, St. Louis; vice-presidents, Drs. Edward G. Jones, Atlanta, Ga., C. Jeff Miller, New Orleans; secretary, Dr. H. A. Royster, Raleigh, N. C., re-elected; treasurer, Dr. G. L. Hunner, Baltimore, re-elected. Dr. John Smyth of New Orleans was elected a fellow.

PERSONALS.—Dr. C. Edwin Verdier, recently returned from service abroad, has opened offices at suite 707-709 Maison Blanche Building.

Dr. T. T. Batson, recently returned from service abroad, has opened offices at 1203-5 Maison Blanche.

Drs. W. A. Lurie and David Adiger announce their association, and have opened offices in Suite 1128 Maison Blanche.

Dr. B. A. Ledbetter has resumed practice, after recovery from a severe accident.

Among the Louisiana physicians who have returned from service since our last list are the following: Dr. C. E. Verdier, New Orleans; Dr. S. O. Turner, De Ridder; Dr. H. D. Van Schaick, Elizabeth; Dr. J. H. McCaa, Baton Rouge; Dr. W. L. Stone, Homer; Dr. N. V. Allessi, Independence; Dr. R. P. Evans, Newellton; Dr. C. S. Miller, Jr., Oil City; Dr. I. N. Adams, Selma; Dr. R. H. Fisher, Sulphur; Dr. S. B. Lyons, Sulphur

REMOVALS—Dr. B. F. Gallant, medical director, Belvedere Private Sanitarium, city office from Maison Blanche Building to Suite 701-703 Audubon Building.

Dr. H. W. Kostmayer, from 1203 Maison Blanche to 2117 Tulane Ave.

Dr. A. G. Maylie, from Mandeville, La., to Covington, La.

Dr. R. B. Austin, from Tylertown, Miss., to Knoxo, Miss.

Dr. Paul Osterhout, from Belton, Tex., to 148 Dunning Ave., San Antonio, Tex.

MARRIED.—On December 11, 1919, Dr. William Kohlmann to Miss Hedwige Ritter, both of New Orleans.

BOOK REVIEWS AND NOTICES

All new publications sent to the JOURNAL *will be appreciated and will invariably be promptly acknowledged under the heading of "Publications Received." While it will be the aim of the* JOURNAL *to review as many of the works accepted as possible, the editors will be guided by the space available and the merit of respective publications. The acceptance of a book implies no obligation to review.*

Rational Therapy, by Otto Lerch, A. M., Ph. D., M. D. The Southworth Co., New York.

The author premises that all remedies "produce a greater purity of blood and restore a disturbed equilibrium between the venous and arterial circulation in one particular organ or in the whole organism." In the pages of his book he proceeds to demonstrate this idea.

The style throughout is discursive and perhaps might be criticised on that account, although it would have been difficult to have presented so large a compilation of ideas without such a method. Air, light and climate are discussed in their interrelations and particular details are presented to show their therapeutic value. The chapter on diet is particularly complete and has been carefully prepared, giving detail in those diseases where diet regulation is indicated. Rest fills another chapter and the initiative of Weir Mitchell is awarded full credit by the author, who expands this subject. The chapter on massage and exercise is admirably illustrated. The neglect of these valuable adjuvants by the average physician can only emphasize the need of such articles in up-to-date texts on therapy.

Even in hospitals well equipt otherwise the absence of provisions for hydrotherapy indicates that this measure is not taught in medical schools nor practiced by enough men to make it mandatory in hospitals. The author not only discusses commoner wet treatment of diseases, but there are given most of the therapeutic measures employed in disease by the use of water. Ample illustrations are afforded of all sorts of baths, with enough detail to serve as a guide to institutions where such appliances are desiderata. The application of such a remedy is furnished for the treatment of those diseases in which hydrotherapy may be of service. Electrotherapy is also discussed.

The author in his preface states that he is the first "to offer the explanation of the marvels of psychotherapy, regulating the blood supply to organs and tissues through higher centers" and in some thirty odd pages he outlines his philosophy: The function of every organ depends on the integrity of the complex nervous apparatus; emotion governs the functions, and is itself influenced by the will; body and brain cells react to stimulation; habit follows continued expression of repeated action directed by control; volition is the beginning of motion and feeling. Voluntary acts originate in the cortex and as they gradually become habit they are transferred to the lower centers to be transmitted to the descendants as instincts, when they are firmly established. In psychotherapy, we use the stimulants that have produced such acts, and their impressions upon the cortex, to reach the lower centers. The control of mental action in turn regulates or may regulate functions of life in health, and also in disease.

Crile's Kinetic theory and Alexander's deep breathing as a regulator of blood supply and of kinetic forces are similar to Lerch's theory—which entertains the belief that all humans are endowed with a kinetic

control—only needing an outside force to awaken the capacity or aptitude of the sick man to avail himself of such power within himself. Hypnotism, suggestion, or psychotherapy are all one and the same thing and it is a pity that the "Marvels of Psychotherapy" are not within the purview of every qualified physician. Local anesthesia, doubtful analgesics now taken irrationally, would be largely relegated if honest physicians would only learn the simple method of having the patient control the pain centers while the operation is done, or while the stimulus to pain passes.

Serums and vaccins, organotherapy, chemotherapy, are the chapters which end the book.

The volume covers over 500 pages and has been well printed, with all illustrations and cuts clear. The numerous typographical errors which mar the book are explained as a war incident.

As the product of the pen of a New Orleans confrere, who has worked out more than one original problem, this work is deserving of much praise and we congratulate the author on his success in presenting his own ideas in so pleasing a form. DYER.

Essentials of Surgery:—A textbook of surgery for Student and Graduate Nurses and for those interested in the care of the sick. By Archibald Leete McDonald, M. D. Pp 265 with 46 illustrations. J. B. Lippincott Co., Philadelphia. 1919.

The author a former lecturer on Surgery at the Nurses training school, St. Luke's Hospital, Duluth, Minn. has probably felt the need of such a book for senior and graduate nurses which presents the subject in a clear, concise, simple yet sufficiently thorough manner to enable the nurse to more intelligently co-operate with the doctor in the care of the surgical patient. The author has admirably fulfilled this need as the book is a veritable mine of information and can be heartily recommended to all nurses, and training schools. The text deals principally with the surgical features of the patient as an elementary knowledge of anatomy, physiology and bacteriology is presumed and no attempt is made to cover these subjects except where it is necessary to emphasize the surgical condition.

The book has evidently been written with a view of being useful to teacher and lecturer, as each chapter is supplemented by a table of demonstrations which will be found quite useful and suggestive in illustrating the subject. A thorough index and quite ample glossary complete the volume. In addition to the unquestioned merits of the volume as a text-book for nurses it would no doubt prove of much value to students in reviewing a subject and in preparing for examinations.

The illustrations while few and not always showing sufficient detail can be easily overlooked by the excellence of the text.

CARROLL W. ALLEN.

Complete Index to Vols. I, II and III Warbasse's Surgical Treatment, by W. B. Saunders Co. 1919.

This handy little book is a complete index to Warbasse's Surgery and includes a list of contributors with chapter and page.

It is unquestionably of decided advantage to the work and will be found most convenient.

It is a new departure and will be quite attractive in large works of several volumes. CARROLL W. ALLEN.

Surgical and War Nursing, by A. H. Barkley M. D. (Hon.) M. C., F. A. C. S. C. V. Mosby Co., St. Louis, 1918.

The author has not attempted to cover the entire field of surgical nursing and has also eliminated such elementary instructions as would seem unnecessary dealing only with such phases of the subject as would be of practical value in the average surgical case.

Some of the chapters are excellent and much valuable instruction and information is given. The chapters on War Nursing could be read with profit by any nurse.

The illustrations are numerous and excellent and many of them should prove very useful.

A rather brief glossary and a thorough index complete the volume.

CARROLL W. ALLEN.

Roentgen Interpretation, by Holmes & Ruggles. Lea & Febiger, Philadelphia and New York, 1919.

This book will fill a long felt want. It is profusely illustrated with very good cuts made from carefully selected X-Ray Negatives, and the descriptive matter is written in a concise and interesting manner. Not only the beginners in Radiology but the general practitioner as well will find much of value in it. GRANGER.

Physical Diagnosis, by Richard C. Cabot, M. D., Professor of Medicine in Harvard University. 7th Edition, William Wood & Co., New York, 1919.

A new edition of this standard work, thus keeping it up to date, is most welcome. For a long period of years the reviewer has commended it to his students as their guide in working up their cases in physical diagnosis and has required its study as part of the collateral reading. The author's clear cut presentation leaves no confusion in the student's mind and while we may not always agree with him we must have respect for his views and for the grounds on which he bases them. A fair criticism of the present edition is that while Cabot justly says that graphic studies of arythmias "are not very likely to be used by the practitioner for whom this book is intended" still he does not adequately describe the characteristics by which the various irregularities can usually be recognized at the bedside without the use of any apparatus whatsoever. Nor does he make plain the widely differing diagnostic and prognostic importance and the therapeutic indications of these arythmias.

I. I. LEMANN.

The Medical Clinics of North America. Published bimonthly by W. B. Saunders Co., Philadelphia and London. $1.00 per year.

November, 1918, Philadelphia number.
January, 1919, New York number.
March, 1919, Boston number.
May, 1919, Baltimore number.
July, 1919, Chicago number.

These volumes appearing every two months present a veritable cross section of the topics being studied and discussed in the various clinics of the country. The subjects chosen are for the most part live ones and their presentation up to the minute. The lecturers having given special attention to the problems they discuss are entitled to speak authoritatively. Case teaching—the scheme to which these volumes

largely adhere—offers the attractions of easy reading text, stimulation of interest and attention, and clear concrete application of principles to everyday practice. It is this combination of attractions that make the publication worth while to the busy practitioner. I. I. L.

Practical Therapeutics, by Hobart Amory Hare, M. D., B. Sc. Seventeenth Edition, Lea & Febiger, Philadelphia and New York, 1918.

This work has so often been reviewed in this journal that there is no reason for recapitulation. Any text-book commanding a large sale when in its seventeenth edition must be one fulfilling a real demand. The present edition maintains the standard of its forerunners and contains much new and useful material. J. T. HALSEY.

International Medical Annual, 1919, Vo. 37, Wm. Wood and Company, New York.

Laying as it does especial emphasis on discussion of newer and approved methods of treatment this arrival makes an especially strong appeal to the general practitioner. Attempting, and with considerable success, to cover a very wide field individual subjects are of necessity but briefly discussed. Timely and valuable sections are those dealing with influenza, cerebrospinal fever, encephalitis, pneumonia, wound treatment, shock, syphilis, and a number of surgical subjects. J. T. H.

The Physician's Visiting List. P. Blakiston's Son & Co., Philadelphia.

While this physician's companion is respectable with age, coming out now for its sixty-ninth year, it is up-to-date not only through its calendar but having kept up with the scientific progress of the time. Its tables are modern and it is presented in a substantial and attractive form.

It is published in several styles: the regular edition, for from 25 to 100 patients, dated; the perpetual, the same as the former but without dates; the monthly, for keeping accounts for the whole month with one entry of name.

Surgery in War—Second Edition 1919, by Alfred J. Hull, F. R. C. S. Lieut. Col., Royal Army Medical Corps; Surgeon, British Expiditionary Force, France; late lecturer on Surgical Pathology, Royal Army Medical College, Millbank; and Surgeon, Queen Alexandra Military Hospital with a Preface by Lieut.-Gen. T. H. J. C. Goodwin, C. B., C. M. G., D. S. O. Director General, Army Medical Service. Published by P. Blakiston's Sons & Co., Philadelphia.

This book is in a class by itself in that it is a reference book dealing with war surgery as evolved by the best minds in the profession and illustrates the perpetual change and improvement accomplished in the different departments of work

As the author states "The object of this book has been to give to the members of the profession who have not practiced war surgery an account of the treatment which has proved efficacious in our hands. Symptomology and details of treatment, which are found in text-books of general surgery, have not been repeated. The book is not intended to be in any sense complete. Surgical knowledge is presupposed, and our efforts have been mainly directed to recounting methods of treatment of the more common injuries met with in war."

In this effort the author has succeeded admirably and the subjects while limited to the most important are dealt with exhaustively.

The author has been ably assisted by a corps of contributors, Pilcher, Miller, Browning, Petrie, Richards, Jocelyn Swan and Tracy all officers in the British army and each especially qualified by experience to speak on his particular subject. Lieut. Colonel Geo. W. Crile is the only American contributor and grateful recognition is shown him in the preface for his assistance in the chapter on shock.

Few American Medical men have had the experience and can speak with the same authority as our British Confreres, many of whom have been in the struggle since its beginning, this fact and the ability and standing of the contributors makes this one of the best books to be had on this subject. CARROLL W. ALLEN.

Volume II—General Surgery of the Practical Medicine Series.—Edited by Albert J. Ochsner, Series 1919 by the year Book Publishers, Chicago.

The present volume as would be expected is replete with information gleaned from the military hospitals of Europe, practically the entire field of War Surgery has been reviewed, including reconstruction Surgery and its adaptation to industrial conditions. Much space is devoted to wounds and their treatment by the various methods either brought out or perfected by war conditions, heat, soap and water, Magnesium Sulphate, Flavine, Petrolatum, Paraffin, Bipp, Formaldehyd, Carrel-Dakin method, Dichloramin T. etc. The more recent views on anesthetics are discussed. Under Spinal Analgesia a large part of the text is devoted to Sacral Analgesia which by an oversight is not properly headed or indexed. Such subjects as shock, gas gangrene and tetanus which have been developed as the result of war experience are fairly freely dealt with; war wounds of the several anatomical divisions of the body are reviewed under their appropriate divisions.—An outline is given of the progress of bone and joint surgery. Rather free space and discussion is given to the different types of malignant tumors with the progress made in their study and treatment.

Surgical progress in the cranial, thoracic and abdominal cavities with their visceral contents is well described, also the vascular and nervous systems. Many new instruments, splints, appliances and equipment of various kinds are illustrated and discussed.

CARROLL W. ALLEN.

Diseases of Children.—By H. D. Chapin, A. M., M. D., and G. R. Pisek, M. D. Wm. Wood & Company, New York, 1919.

In the Fourth Edition, the authors of this work have continued their policy of the past of bringing their very valuable book up to date. Several new articles have been added to the text, namely, Acidosis, Food Allergy, Epidemic Encephalitis and Functional Heart Disorders. The subject of Spasmophilia and its allied conditions have been more thoroughly considered than previously. More space and greater consideration has been given to the important subject of the diet for older children. Some of the illustrations added are exceptionally good. Particularly is this so with regard to the cutaneous test in the article of Food Allergy.

The consideration of the various subjects are very concise and thorough. The work is a ready reference and should receive the hearty approval of the profession which it deserves. DeBUYS.

The Soldier' Heart and the Effort Syndrome, by Thomas Lewis, M. D., F. R. C. P., D. Sc., Physician of the Staff of the Medical Research Committee; Consulting Physician in Diseases of the Heart, Eastern Command. Assistant Physician and Lecturer in Cardiac Pathology, University Hospital, London. 8. vo. pp. 135. **Paul B. Hoeber,** New York, 1919.

Many lessons of war can and should be carried over into civilian life. The judgment of the efficiency of hearts and especially of those apparently overacting has been tremendously influenced by the study of the condition known as "D. A. H." and "Effort Syndrome," and most of Dr. Lewis' teaching set forth in this little book is applicable to the cases of heart disease we see day by day. There is a great deal of the dogmatic teaching as to murmurs and other findings of physical examination that must be cast aside in the light of newer physiologic and pathologic knowledge. Lewis does some vigorous sweeping away of cobwebs. The average man will take delight in the absence of technicality, the emphasis placed upon simple methods of examination rather than elaborate ones and in the plain everyday common sense of the deductions made. Anyone who has to deal with heart cases, whether as practitioner or as examiner on pension boards and for life insurance companies and the like, will read this book with profit. It is to be regretted that the title may give impression that it is of purely military interest.

I. I. Lemann.

PUBLICATIONS RECEIVED

LEA & FEBIGER, Philadelphia and New York, 1919.

Experimental Pharmacology, by Hugh McGuigan, Ph. D., M. D.

W. B. SAUNDERS COMPANY, Philadelphia and London, 1919.

Manual of Obstetrics, by J. C. Hirst, M. D.

Manual of Obstetrics, by Edward P. Davis, A. M., M. D., F. A. C. S., 2nd edition, revised.

Pathogenic Bacteria and Protozoa, by Joseph McFarland, M. D., Sc. D. Ninth edition.

Nervous and Mental Diseases, by Archibald Church, M. D., and Frederick Peterson, M. D., Ninth edition.

Surgical Clinics of Chicago, Vol. 3, No. 5, October, 1919.

P. BLAKISTON'S SON & CO., Philadelphia, 1919.

Physician's Visiting List, 1920.

THE MACMILLAN COMPANY, New York, 1919.

Pellagra, by H. F. Harris, M. D.

WM. WOOD & COMPANY, New York, 1919.

Physical Diagnosis, by Richard C. Cabot, M. D., 7th Edition.

Diseases of Children, by H. D. Chapin, A. M., M. D., and G. R. Pisek, M. D., Sc. D.

The Medical Record Visiting List 1920.

PAUL B. HOEBER, New York, 1919.

Thoughts of a Psychiatrist on the War and After, by William A. White, M. D.

The Prevention of Dental Caries and Oral Sepsis, by H. P. Pickerill, M. D.

WASHINGTON GOVERNMENT PRINTING OFFICE, Washington, D. C.

U. S. Naval Medical Bulletin, Vol. 13, No. 4.

Public Health Reports, Vol. 34, Nos. 40, 41, 42, 43 and 44.

Service and Regulatory Announcements, (Supplements.) U. S. Department of Agriculture, Bureau of Chemistry.

Annual Report of the Surgeon General, U. S. Navy, 1919.

Public Health Reports. Volume 34, Numbers 45, 46, 47, 48.

Mortality Statistics, 1917.

THE PANAMA CANAL PRESS, Mount Hope, C. Z.

Report of the Health Department of the Panama Canal, 1918.

MISCELLANEOUS:

Mercury Publishing Company, New Bedford, Mass. Transactions of the American Otological Society, 1919.

Manila Bureau of Printing, 1918. Philippine Health Service Almarac for 1919 and Calendars for 1920 and 1921, by Mr. Mamerto Tianco and Dr. J. D. Long.

Masson et Cie., Paris, France, 1919. Les Lésions des Nerfs, by Mme. Athanassio-Benisty.

The Rockefeller Foundation, 1919. China Medical Board, Fourth Annual Report.

International Health Board, Fifth Annual Report, 1918.

The Rockefeller Foundation, Annual Report for 1918.

REPRINTS.

Hospital Service in Rural Communities, by Ernst C. Meyer.

Surgery of the Heart and Pericardium; Radium in the Treatment of Uterine Fibroids, by J. Warren Little, M. D., F. A. C. S.

The Climate of Korea and the Probable Effect on Human Efficiency, by J. D. Van Buskirk, M. D.

Suicide and Civilization, by Tom A. Williams, M. D.

The Identity of Commercial Blue Flag, by Oliver Atkins Farwell.

Influenza—"The Flu," Public Health Reports.

Epidemic Influenza in Foreign Countries, by W. H. Frost, M. D., and Edgar Sydenstricker.

Deer-Fly Fever or Pahvant Valley Plague, by Edward Francis, M. D.

The Malaria Problem of the South, by H. R. Carter, Asst. Surg. General.

School Medical Inspection, by Taliaferro Clark, Asst. Surg. General.

Constitutional Foundations of Federal Public Health Functions, by Frank J. Goodnow, LL. D.

Venereal Disease Control and Activities, by Chas. V. Herdliska.

Summary of Report of Lieut.-Commander William Seaman Bainbridge, by Eliza Mosher, M. D.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans, for November, 1919.

CAUSE.	*White.*	*Colored.*	*Total.*
Typhoid Fever	----	3	3
Intermittent Fever (Malarial Cachexia)	1	1	2
Smallpox	----	----	----
Measles	----	----	----
Scarlet Fever	----	----	----
Whooping Cough	----	----	----
Diphtheria and Croup	2	1	3
Influenza	2	----	2
Cholera Nostras	----	----	----
Pyemia and Septicemia	----	----	----
Tuberculosis	36	27	63
Cancer	26	18	34
Rheumatism and Gout	1	2	3
Diabetes	4	----	4
Alcoholism	----	----	----
Encephalitis and Meningitis	2	1	3
Locomotor Ataxia	----	----	----
Congestion, Hemorrhage and Softening of Brain	20	10	30
Paralysis	3	1	4
Convulsions of Infancy	----	----	----
Other Diseases of Infancy	19	8	27
Tetanus	1	2	3
Other Nervous Diseases	3	----	3
Heart Diseases	48	35	83
Bronchitis	1	----	1
Pneumonia and Broncho-Pneumonia	14	15	29
Other Respiratory Diseases	----	2	2
Ulcer of Stomach	3	----	3
Other Diseases of the Stomach	2	----	2
Diarrhea, Dysentery and Enteritis	13	2	15
Hernia, Intestinal Obstruction	2	2	4
Cirrhosis of Liver	4	2	6
Other Diseases of the Liver	1	1	2
Simple Peritonitis	----	----	----
Appendicitis	3	3	6
Bright's Disease	20	18	38
Other Genito-Urinary Diseases	13	11	24
Puerperal Diseases	8	1	9
Senile Debility	7	1	8
Suicide	4	----	4
Injuries	18	14	32
All Other Causes	35	70	55
TOTAL	316	191	507

Still-born Children—White, 32; colored, 23; total, 55.

Population of City (estimated)—White, 283,000; colored, 106,000; total, 389,000.

Death Rate per 1000 per annum for Month—White, 13.40; colored, 21.62; total, 15.64. Non-residents excluded, 13.60.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean atmosphere pressure 30.06
Mean temperature ..... 66.
Total precipitation ..... 7.24 inches
Prevailing direction of wind, northeast.